

# American Artisan

Founded 1888

The Warm Air Heating and Sheet Metal Journal

Vol. 96, No. 11

CHICAGO, SEPTEMBER 14, 1929

\$2.00 Per Year

## NOW you can meet cast iron competition on small jobs with a— REAL STEEL HEATER

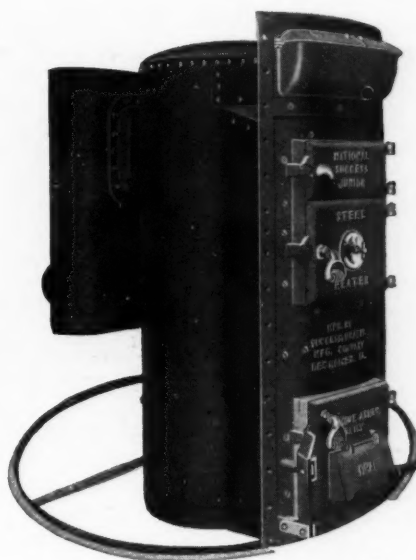
Made of low carbon,  
high grade steel.

Body eight gauge.

Radiator twelve gauge.

Full cast front made  
in one piece.

Double feed doors.



Ratio of heating surface  
to grate area 19.9 to 1.

Upright lever shaker.

Body riveted, radiator  
welded.

Angle iron base ring.

Two-piece heavy cast  
iron connecting collar,  
no bolts, gaskets nor  
cement necessary.

Made in two sizes 22 inch and 24 inch shells or bodies. Made with the same care as our well known Standard Service Heater, Heavy Duty Heater and Power Plus Heater

WRITE TODAY FOR SPECIAL PRICES  
AND TERMS ON SAMPLE HEATER  
FOR YOUR INSPECTION

SUCCESS HEATER MANUFACTURING COMPANY  
1015 Murphy Street Des Moines, Iowa

# PREMIER • DELUXE

Would You Pay

**\$7.40**

for a 152 lb.

**Furnace Casting**

**• and then ?  
not get it**

The eighth of a series of twelve advertisements to appear on this page.

## would you?

NO! You wouldn't. Like everyone else, you'd holler long and loud if someone soaked you \$7.40 for a 152 lb. furnace casting, and then refused to deliver it.

BUT maybe you are paying something for nothing. Take a look at these figures!

THE most popular size of eleven of the most popular cast furnaces manufactured were recently averaged according to weight, capacity and price. The average was then compared with a Premier DeLuxe Heater of the same size.

HERE'S the verdict! The average furnace weighed 1220 lbs., while a Premier of the same size weighs 1372 lbs. The average capacity was

589. Premier capacity of the same size is 600. And get this—Premier, although of a greater capacity by 11 and weighing 150 lbs. more, still was \$7.40 lower in price.

THERE can be no doubt that the outstanding reason for Premier success is the dollar for dollar value given.

BUT wait! Price, weight and capacity are only three angles of the matter. What about cooperation?

A PREMIER Dealer—ask anyone—will tell you Premier cooperation is good enough to be true—and it is! Premier helps interest the prospect, helps close him, helps install the job, helps collect the money—and helps you build a business in a town full of satisfied, boosting users. What sort of cooperation are you getting?

TODAY! COMPARE WHAT YOU'RE GETTING NOW—AND WHAT PREMIER GIVES ITS DEALERS. THEN ACT ON THE COMPARISON.

Read "What Are You Going to Do About It?" in the September Pictorial.

## PREMIER WARM AIR HEATER Co., DOWAGIAC, MICH.

# WHERE THERE'S SMOKE....

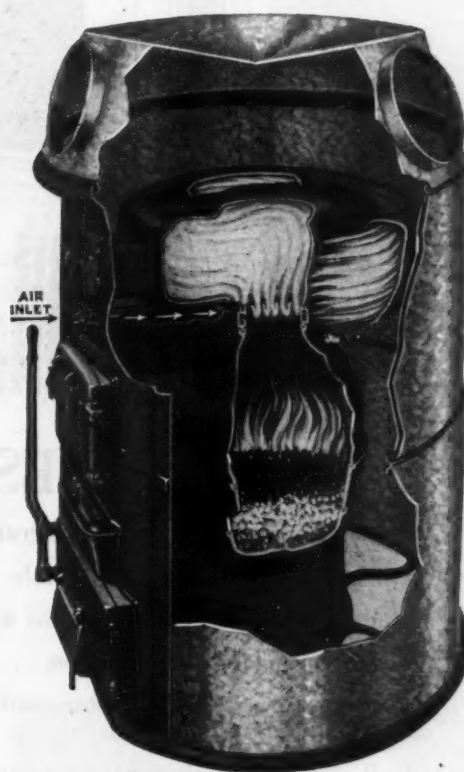


## There's Business for YOU.....

**W**HEN out for new business, give a thought to the chimneys in your neighborhood that smoked last season. Each represents an inefficient heating plant and a chance to tell some prospect about the RICHARDSON SUPER-SMOKELESS WARM AIR HEATER.

Many householders who never thought much about it before are mighty glad to hear about a furnace which, by means of a patented carburetor placed just above the combustion dome, transforms the ordinary waste products of the chimney into thousands of extra good old B.T.U.'s.

The proper mixture of air and unburned gases is easy to explain because it's so like the action of an automobile carburetor. Your men will see the point at once.



**RICHARDSON**  
*Super-Smokeless Warm Air Heater*

*We believe in and are members of The National Warm Air Heating Association.*

## RICHARDSON & BOYNTON CO.

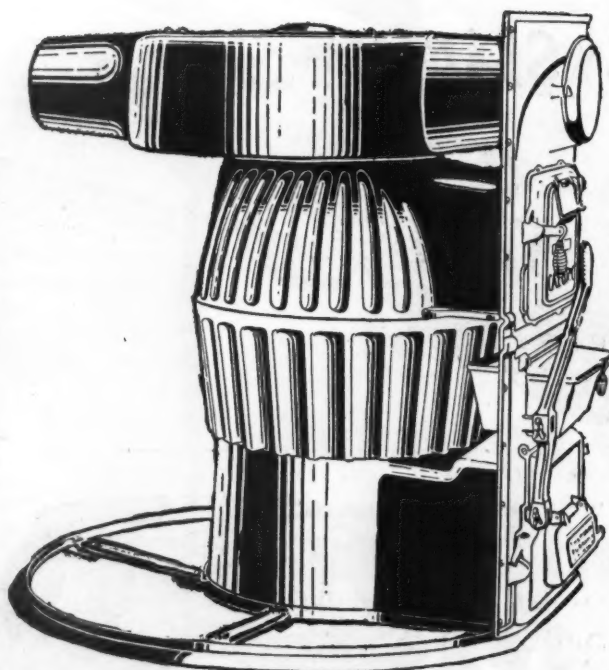
*Manufacturers of "Richardson" "Perfect" Heating and Cooking Apparatus Since 1837*

**260 Fifth Ave., New York**

**Utica, New York**

New York   Utica   Newark   Philadelphia   Boston   Chicago   Buffalo   Minneapolis   Cincinnati   Detroit   Providence

Published Weekly by Porter, Spafford, Langtry Corp., 139 North Clark Street, Chicago, Illinois. AMERICAN ARTISAN—the Warm Air Heating and Sheet Metal Journal—entered as second class matter, March 26, 1928, at the Post Office at Chicago, Illinois, under act of March 3, 1879. Formerly entered on June 25, 1887, as American Artisan and Hardware Record.



## A MASTER FURNACE

**M**ADE with every convenience for the user, and with so many points of excellence that it is easy for the dealer to sell. A staunch, durable, dependable, and economical furnace, manufactured and backed up by a concern with fifty years' experience in warm air heating.



## NOTICE THESE SELLING FEATURES

Roller bearing agitator type of grate  
Upright waist high shaker handle  
One or two-piece double ribbed firepot

Large corrugated feed section  
One-piece seamless radiator with smoke and cleanout collars cast on

Full cast front with expansion joint

Large well-proportioned corset type casings with one-inch air space insulation  
Low construction for shallow basements  
Deep well designed cup joints  
Velvet smooth uniform castings  
Large water pan with lock-open cover  
Attractive dealer franchises open in many places, send for catalogs and dealer proposition.

## SEND YOUR REPAIR ORDERS TO US

In November, 1928, this Company purchased from the Receiver for the Monitor Furnace Company all of the original master and working patterns for *Caloric*, *Monitor*, *Kleenaire*, *Big Boy*, and *Merrimac* furnaces, and this is the only company authorized by the courts to continue the manufacture and sale of these products.

Repair parts made from the original patterns is the only way you can be assured of a perfect fit.

*Send all repair orders to Marshall*

**MONITOR-CALORIC DIVISION**  
**MARSHALL FURNACE CO. MARSHALL, MICHIGAN**

# Vernois

## Will Fulfill All Your Promises of Service!

THE VERNOIS represents an achievement of many years' experience of men at the head of the VERNOIS organization.

In making this furnace we have strictly adhered to the principles governing the production of high quality products.

The VERNOIS gives you real selling features. It is designed, engineered and built to meet modern conditions with new standards of economy.

When you get right down to a brass tacks, dollars-and-cents proposition—when you subject quality to critical comparisons—when you investigate thoroughly, you will decide on the VERNOIS line of furnaces.

*We have a dealer proposition that will interest you.  
Write for catalogue of full line.*

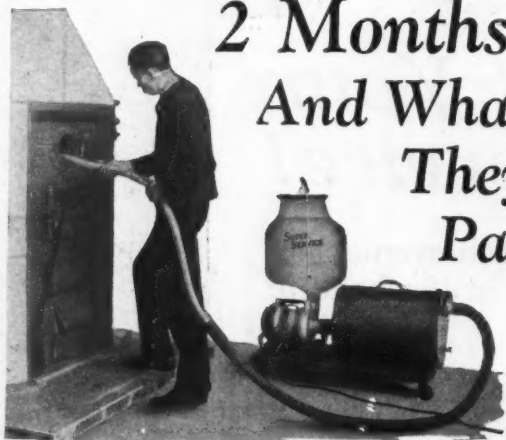
WRITE FOR INFORMATION  
About Vernois Circulators  
And GAS RANGES



Mt. Vernon Furnace & Mfg. Co.  
Mt. Vernon, Ill.



## 178 Jobs In 2 Months And What They Paid



3 to 4 jobs a day—one man—powerful—light.

One furnace man gives us this report on his first two months' earnings with one *Super Service Cleaner*.

178 Cleanings, brought in.....	\$1,424.00
74 Repair jobs paid, gross....	666.00
15 Complete overhauls @ \$50..	750.00
	<hr/>
	\$2,840.00

**H**E had net profits on cleanings alone in excess of three times the cost of his Cleaner.

In addition he sold nine new furnaces as the result of his surveys—and the season is only well launched.

Any furnace man can see at a glance the value in dollars of the repairs, overhauls and new sales, when added to the fine profits from cleaning jobs.

*This record can be duplicated in practically every community. Write today for our PLAN BOOK, which tells how to get such profits. It's Free.*

**The NATIONAL SUPER SERVICE CO.**  
816 Lafayette St. Toledo, Ohio

## MONCRIEF FURNACES



**FINISHED IN AUTUMN RED**

*Fine Finish Expresses  
Fine Quality*

**T**HE Autumn Red and Gold finished front of the new Series "C" Moncrief Furnace is a true indication of quality construction throughout. The favorable impression created by this finely finished front paves the way for telling the Ten Points of Moncrief superiority.

*Send for details of the  
Moncrief Proposition.*

**The Henry Furnace & Foundry Co.**  
3471 E. 49th St. Cleveland, Ohio

**Distributors:**  
Carr Supply Co., 412 No. Dearborn St., Chicago, Ill.  
August Bery & Son, Mack Ave. at Drexel, Detroit  
The Henry Furnace & Foundry Co., Pittsburgh, Pa.  
Frontier Water & Steam Supply Co., 366 Oak St.—  
481 Elliott St., Buffalo, New York.  
Johnson Furnace Co., Kansas City, Mo.  
E. A. Higgins, 1112 Douglas St., Omaha, Neb.  
Moncrief Furnace & Mfg. Co., Dallas, Texas.  
E. W. Burbank Seed Co., 29 Free St., Portland, Me.  
J. F. Conant, Ry. Term. Warehouse, Troy, N. Y.  
Wilkes-Barre Hdwe. & Stove Co., 18-20 So. Wash-  
ington St., Wilkes-Barre, Pa.  
The Crawford Heating Co., Steubenville, Ohio.  
Stockhoff Supply Co., St. Louis, Mo.

**EASTERN OFFICE**  
Room 1306, 11 W. 42nd St., New York City.  
E. L. Garner, Manager.

*We supply everything used on a warm air  
heating job.*

# WISE



WISE OPEN DOME  
CAST FURNACE

## A Newly Designed One-Piece Cellular Firepot

and another big improvement, the Elbow Shaped Flue Collar on inside of radiator turned up so that all heat must follow castings to the top before entering the flue, make this famous Wise high quality furnace a still bigger favorite.

Write for our special broad-side which gives full details of construction.

## No other furnace has this worthwhile Radiator Clean-Out feature

because it is a Patented Wise furnace feature. This patented construction allows communication between top radiator and feed section bringing the opening of the fire flues directly into the feed chamber. The flues are therefore easily accessible for cleaning through the upper feed door. The home owner has greatly approved of this new feature. The 20 Series also has the new one - piece Cellular Firepot.



WISE 20 SERIES  
CAST FURNACE



WISE STEEL  
FURNACE

## —and the New Wise Steel Furnace has an important exclu- sive feature also

You will notice that the bottom of the radiator is different. That's the feature. The weak spot in steel furnace construction has been done away with in the Wise Steel Furnace. The bottom of the Wise radiator has a heavy Cast Iron Soot Box and Clean-Out. It has all the other high grade modern features of construction and Special Design Grates. It is both welded and riveted.

Here is truly the quality line for your business. The Wise line is famous for over 25 years of successful furnace manufacturing. Now you can confine all your furnace purchases to one line.

The  
WISE FURNACE COMPANY  
AKRON, OHIO

# FURNACES



## A real Hot Blast no soot! no smoke!

MANY so called hot blast furnaces are imitators of the Florence Hot Blast principle originated over half a century ago, and featured in Florence Stoves ever since. The Florence may be controlled entirely by the hot blast regulator—a test, no other claimant of a hot blast can duplicate.

The Florence is first, a fuel saver and gas and smoke consumer—second, changes the cheapest coal to coke—third, produces fewer ashes—fourth, is absolutely sootless, and fifth, guarantees positive control of the fire. Live wire dealers are linking their names with the Florence—you can do the same and make more money.

## The FLORENCE “furnishes finer features”

## C. EMRICH COMPANY

Founded in 1861

COLUMBUS, OHIO

Manufacturers also of the famous Supreme  
Florence Heater and Florence Stove

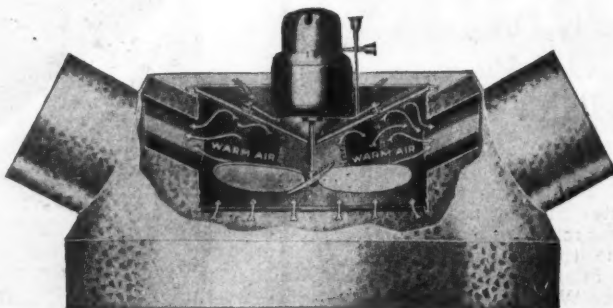
MAIL THIS COUPON for COMPLETE DETAILS

NAME .....  
ADDRESS .....  
CITY .....  
STATE .....

A.A.-9-29

# Here's the furnace fan that's EASY TO SELL EASY TO INSTALL and EASY TO OBTAIN

The only fan  
that forces  
the air directly  
into the pipes



The only fan  
that requires  
no alteration of  
cold air return

JUST display  
the ROBINSON  
in your window  
and watch folks  
take notice . . .

A demonstra-  
tion sells it  
because it's  
efficient, high  
grade and  
not expensive . .

These firms will serve you.  
Write them for full details.

BAKER-PAYNE-VOYE CO., Boston, Mass.  
THE BECKWITH CO., Dowagiac, Mich.  
BERGSTROM MFG. CO., Neenah, Wisconsin  
CARR SUPPLY CO., Chicago, Ill.  
DAYTON-HESSLER CO., Syracuse, N. Y.  
DEMMLER BROS. CO., Pittsburgh, Pa.  
FARRIS FURNACE CO., Springfield, Ill.  
C. L. FEATHERSTONE FURNACE CO., Spokane, Wash.  
FOLLANSBEE BROTHERS CO., Pittsburgh, Rochester, Cincinnati, Memphis, Detroit, Indianapolis, Milwaukee, Louisville.  
FLORAL CITY HEATER CO., Monroe, Mich.  
FOX FURNACE CO., Elyria, Ohio  
HEATING & SUPPLY CO., Pittsburgh, Pa.  
HENRY FURNACE & FOUNDRY CO., Cleveland, O.; Indianapolis, Ind.; Pittsburgh, Pa.  
M. K. HOKE, ESTATE, Mannheim, Pa.  
HOMER FURNACE CO., Coldwater, Mich.  
IDEAL FURNACE CO., Detroit, Mich.  
INTERNATIONAL HEATER CO., Utica, Chicago, Cleveland, Nashua, New Hampshire, Longbranch, N. J.  
KALAMAZOO STOVE CO., Kalamazoo, Mich.  
KELLEY-HOW-THOMSON CO., Duluth, Minn.  
KELSEY HEATING CO., Syracuse, N. Y.  
W. E. LAMNECK CO., Columbus, Ohio  
LENNOX FURNACE CO., Inc., Syracuse, N. Y.  
LENNOX FURNACE CO. OF CANADA, LTD., Toronto, Ontario & Winnipeg, Man.  
THE MAJESTIC CO., Huntington, Ind.  
MAY-FIEBEGGER CO., Newark, O.; Akron, O.  
MIDLAND FURNACE CO., Columbus, Ohio  
MONCRIEF FURNACE CO., Atlanta, Ga.  
NEW IDEA FURNACES, LTD., Ingersoll, Ont., Can.  
THE OHIO SHEET METAL & MFG. CO., Dayton, Ohio  
J. M. & L. A. OSBORN CO., Cleveland, O.; Buffalo, N. Y.  
PEASE FOUNDRY CO., Ltd., Toronto, Ontario, Canada  
PENINSULAR STOVE CO., Detroit, Mich.  
PORTLAND STOVE FOUNDRY CO., Portland, Maine  
RICHARDSON & BOYNTON CO., New York, Chicago, Boston, Philadelphia, Buffalo, Minneapolis, Newark, N. J.  
THE SCHILL BROS. CO., Crestline, O.  
SUCCESS HEATER MFG. CO., Des Moines, Ia.  
WESTERN STEEL PRODUCTS CO., Duluth, Minn.  
GEO. F. WHEELOCK CO., Birm'gh'm, Ala.  
WISE FURNACE CO., Akron, Ohio

IT is easy to  
install which  
means less labor,  
time and  
expense . . . .

It is easy to  
obtain---just  
pick out the  
jobber you want  
from the big  
list on this  
page . . .

Mfg. by The A. H. ROBINSON CO., Massillon, Ohio

# ROBINSON

## Heat Distributor

# AFCO-GRAMS

## BRIEF AND TO THE POINT

### The Cream of the Furnace Business

Home owners will buy the best warm air circulating system - when they know the facts.

The best warm air systems are built around 'AFCO' Boiler Plate Furnaces.

It's easier to sell an 'AFCO' Furnace with real talking points than it is to sell a furnace with a cheap price as the only sales feature.

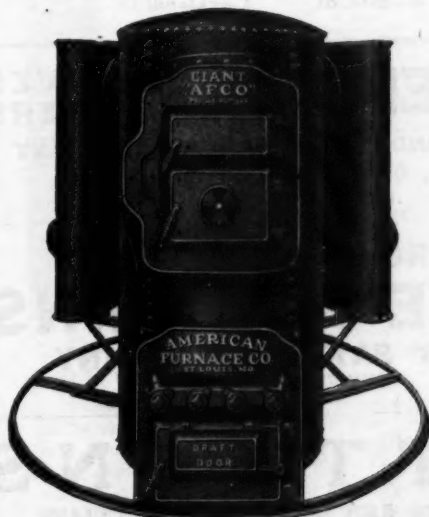
More dealers are discovering the profit advantages of the 'AFCO' Dealer Franchise every year. Can we tell you about them? Sign below.

AMERICAN FURNACE COMPANY, St. Louis, Mo.

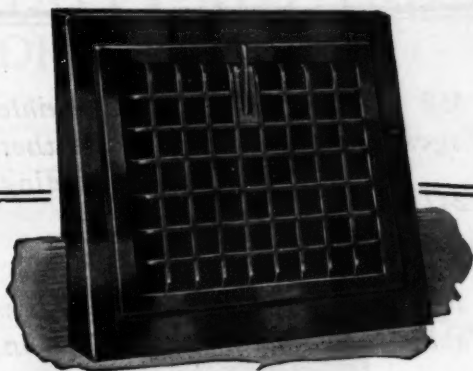
Send on the details of the 'AFCO' Sales Plan

Name.....

Address.....



The Giant "AFCO"



### The AUERISTOCRAT

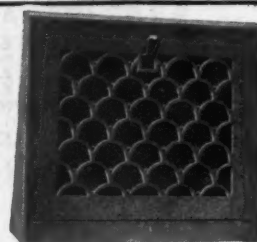
of all registers, combining air capacity, decorative and concealing features.

Designed to conform with the Standard Code so they fit all standard boxes.

Auer Patented mechanical features make it perfect in operation,—quick and easy to install.

*Auer's Save Hours and Dollars*

**The AUER REGISTER CO.**  
Cleveland, Ohio



The "Classic" Style 702  
Baseboard Register

### TUTTLE & BAILEY SUPER-REGS

Reg. U. S. Pat. Office

COMPRISE  
EVERY TYPE REGISTER  
AND FACE FOR  
WARM AIR HEATING

Stocks carried in all principal cities

**TUTTLE & BAILEY MFG CO.**

Established 1816

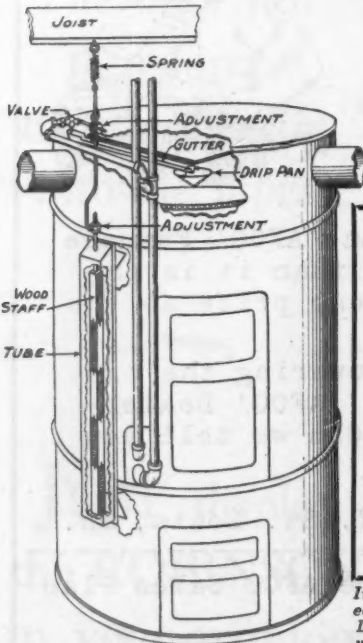
441 Lexington Avenue

New York

Look for the New Tudor Sidewall Register  
in the September 28 issue

Give your customers perfect humidification with the—

## PERFECT AUTOMATIC HUMIDIFIER



EXTREMELY  
SIMPLE...  
UNUSUALLY  
PRACTICAL...

In use in hundreds  
of homes for over  
four years

HERE is the simplest  
and most practical  
automatic humidifier ever  
devised.

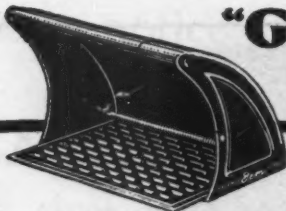
The dryness and humidity  
of the air regulate the  
water flow. When the  
air is dry the drip oper-  
ates until required mois-  
ture is being supplied,  
then a positive action  
causes it to stop.

It can be regulated to  
keep the humidity at any  
desired degree. The valve  
closes automatically when  
fire is out.

Write today for full mech-  
anical details on the Per-  
fect Automatic Humidifier.

It sells easily because it is  
economical and practical.  
Dealers are making big profits  
with it.

The PERFECT HUMIDIFIER COMPANY  
1605 CHEMICAL BUILDING ST. LOUIS, MO



## "GEM" ADJUSTABLE REGISTER SHIELDS

Adjustable  
10 in. to 19 in.

The recent addition of the Dull Brass finish to the "GEM" Adjustable Register Shield line should prove an exceptional sales stimulant. The new finish pleases the eye and is one of the most popular colors of the current season.

Also finished in Oxidized Copper and Black Enamel.

Retail at: "GEM" Floor Shield, Black, \$1.25;  
Dull Brass or Ox. Cop., \$1.50; "GEM" Wall  
Shield, Black, 65c; Dull Brass or Ox. Cop., 75c.

1140 BROADWAY, NEW YORK, N.Y.

BUY FROM YOUR JOBBER



## THE "Alamo" LINE

Chas. Smith  
HOT WATER HEATERS

THIS is the Improved GEYSER which fits any  
warm air furnace and takes the place of pipe  
coils for heating domestic water.

It is easier to install and because of shape heats  
more water than other castings of same size.

It is tested to withstand 150 lbs. pressure. It  
heats 30 to 50 gallon tank and comes tapped for  
3/4 inch pipe. Length, 10 inches; weight, 12 lbs.  
Write for prices and catalog of complete line show-  
ing larger heaters which can be placed in any fur-  
nace and connected to radiators for making combina-  
tion Warm Air and Hot Water Heating installations.

Manufactured by

ALAMO HEATER CO.  
6143 Wentworth Ave. Chicago, Ill.



## BOLTS

WE MANUFACTURE A COMPLETE  
LINE OF BOLT PRODUCTS, INCLUD-  
ING STOVE BOLTS, CARRIAGE BOLTS,  
MACHINE BOLTS, LAG BOLTS, NUTS,  
COTTER PINS, ETC. ALSO STOVE  
RODS, SMALL RIVETS AND HINGE  
PINS. CATALOG ON REQUEST.

THE LAMSON & SESSIONS CO.

THE KIRK-LATTY CO.

1971 W. 85th St. Cleveland, O.

## PATTERNS FOR STOVES AND HEATERS

THE CLEVELAND CASTINGS PATTERN COMPANY  
CLEVELAND, OHIO

## IRON AND WOOD STOVE PATTERNS

QUINCY PATTERN COMPANY  
QUINCY, ILLINOIS

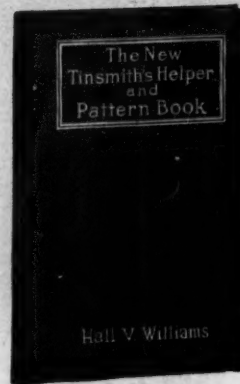
## PATTERNS

FOR STOVES AND HEATERS FIRST-CLASS  
IN WOOD and IRON  
VEDDER PATTERN WORKS ESTABLISHED 1885 TROY, N. Y.

352  
Pages

247  
Figures

165  
Tables



Flexible  
Leather  
Binding

Measures  
4 1/2 x 5 in.

## One of the Best and Most Popular Books

on tinsmithing and elementary sheet metal work. This is the  
latest edition and the contents are new excepting the chapter on  
Mensuration, which has been re-arranged and amplified, and pos-  
sibly some fifty pages of problems and tables which are classified  
to the phase of the work they cover.

### This Book Covers Simple Geometry and Every Phase of Modern Pattern Cutting

from the making of every type of Seam, Lap and Joint, to Coni-  
cal Problems and Tinware, Elbows, Piping, Ducts, Gutters, Lead-  
ers, Cornice and Skylight Work and Furnace Fittings.

In fact an excellent all-around book for every man in the trade.  
Mr. Williams writes in an easy-to-read, helpful manner, giving  
you all the necessary details about each subject he handles.

You should add this widely read book to your collection now.

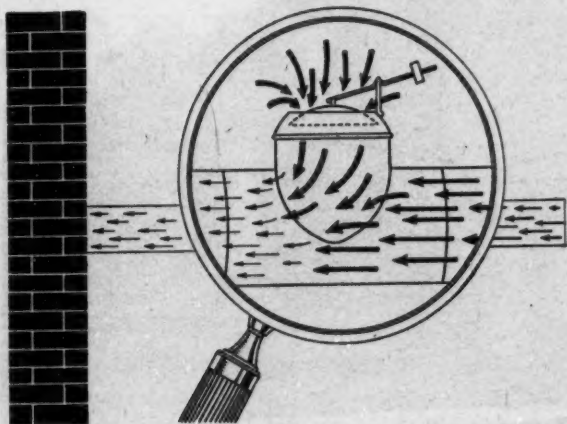
PRICE \$3.00

AMERICAN ARTISAN

139 North Clark Street

CHICAGO

## Eliminate Guesswork in DRAFT CONTROL



Take your furnace installations out of the competitive class by selling controlled heat.

When you install the Staley Automatic Draft Regulator on the smokepipe of every furnace your customers will enjoy even temperatures regardless of changes in weather conditions, positive fuel savings of 10-25 per cent, genuine heat satisfaction year after year. It eliminates guesswork, needs no attention whatever—once adjusted the furnace operates with remarkable efficiency. No furnace complete without one.

## STALEY AUTOMATIC DRAFT REGULATOR

Used successfully for 5 years on all makes and types of heating systems—coal, coke, oil or gas. Nothing to get out of order—simple construction—easily installed. Uniform draft under all conditions. Reduces stack temperatures, prolongs life of furnace—prevents overheated chimneys and danger of chimney fires.



Made of durable aluminum in 6 sizes. Will not rust or corrode. Low price.

Convince yourself of the wonderful merit of this regulator by testing one under your own personal supervision—possibly on your own home heating system. Send the coupon for special introductory offer, giving which size you prefer.

Try One Yourself  
Special Introductory Offer

Mail the  
Coupon

GRAY BROS. CORP'N, Plano, Ill.

Please send details of special offer on Staley Automatic Draft Regulator.

Name .....

Address .....



**-the fastest money  
maker you ever  
had.. You get \$48 installed.  
It costs you \$22.75.. that means  
a gross profit of \$25.25 for you.**

And there's no service after it's installed to eat up your profits. Can you make money handling sales like that? Does that profit interest you? Thousands have been installed. Three quarters of a Million dollars worth handled by dealers in less than 10 months. 9 out of 10 homes want this low cost heat regulator. Use the coupon now for **Special proposition**, for we're out to "Split a Million" among live dealers.

### 4 Things You Want

1—Adequate profit with no service worries to eat into them.

2—National advertising reaching over 6,750,000 homes, reading the Saturday Evening Post, Literary Digest and American Magazine.

3—Helps to help you sell—self selling display material and literature to tell your customers about this low cost heat regulator.

4—"Sheer Comfort" 3 Minute demonstrating outfit that enables you to show your customers in your store and in their home just how "Sheer Comfort" functions.

## SHEER COMFORT heat Regulator



H. M. Sheer Co., 213 Hampshire St.  
Quincy, Illinois.

How do I get my share of your "Split a Million" Campaign. What's your special proposition?

Store Name.....

Address .....

City.....

My jobber is.....



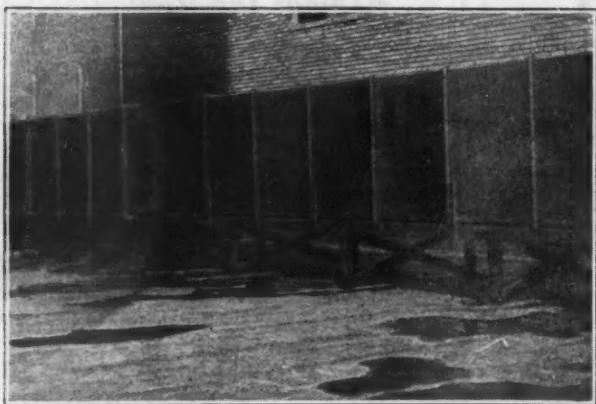
W. H. Dennis of Dennis & Jocelyn, of Hamilton, Ontario, Canada, installed galvanized ARMCO Ingot Iron roofdecks, valleys, gutters, conductor pipes and flashing on this house when he built it in 1911.

Now, eighteen years later, this installation is in excellent condition. Dennis & Jocelyn, by close adherence to ARMCO Ingot Iron, has become one of the 3 or 4 largest sheet metal companies in Hamilton.



## "Never a complaint from an ARMCO Ingot Iron Job"

"WE have used many kinds of iron", writes Edward N. Kuntz, president of the Excelsior Cornice Works, 7821 Ivory Avenue, St. Louis, Missouri, "but have always found that ARMCO Ingot Iron is best. We have used it for five years and never had a complaint. We use ARMCO Ingot Iron for all our work, unless some other is specified."



More than a ton and a half of ARMCO Ingot Iron was used in this duct which is a part of the ventilating system of the Y. M. C. A. at 16th and Locust Streets, St. Louis, Missouri. This installation made by the Excelsior Cornice Works, has been used by the Ingot Iron Shop Contractor in converting many customers to the durable, blue triangled iron.



"On our job at the St. Louis Y. M. C. A. Building, 16th and Locust Streets, a different brand was specified, but we convinced them of the durability of ARMCO Ingot Iron. Now they know that it lasts, and saves."

Thousands of Ingot Iron Shop contractors are recommending ARMCO Ingot Iron and getting repeat sales because of its durability.

Home owners, business men, and builders know that it pays to patronize the shop that does "quality work with quality iron."

### ARMCO DISTRIBUTORS' ASSOCIATION OF AMERICA

Executive Offices: Middletown, Ohio

## ARMCO INGOT IRON RESISTS RUST

Mention AMERICAN ARTISAN in your reply—Thank you!

An Air Conditioning unit for every warm air heated home—  
successful, economical and easily installed.

HUMIDIFY—CLEAN AND FORCE  
THE AIR WITH THE

# KORECTAIRE

The Correct Air Machine

**Y**OU can sell more warm air heating installations and make a larger profit by selling *air conditioning* as a most essential feature of this best form of heating.

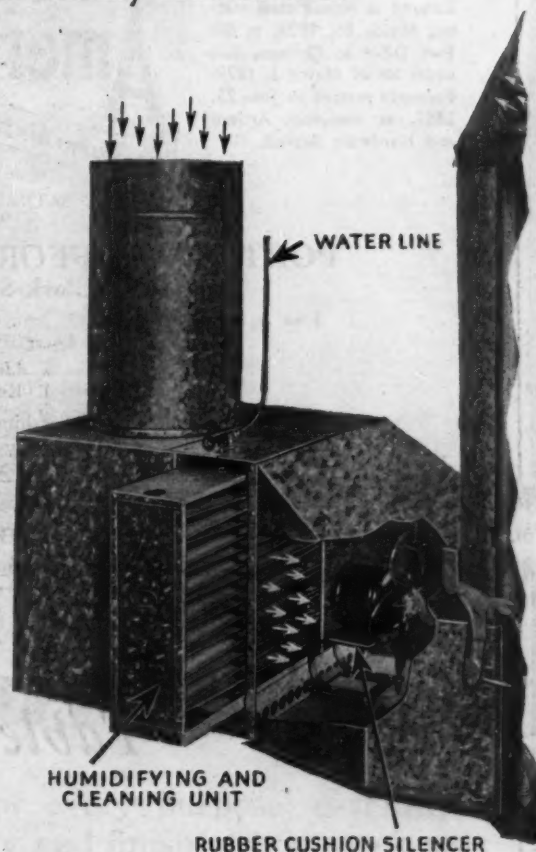
Folks will get a different and better idea of warm air heating when you show them the KORECTAIRE feature of *your* installations.

KORECTAIRE is scientifically designed to perform the most efficient service in Humidifying—Cleaning and Forcing the air. It is high grade in every respect.

Let us tell you all about its mechanical features *now*—have us tell you how you can add KORECTAIRE to every job you install with good profit.

*Display KORECTAIRE in your window—watch the folks take a new interest in warm air heating.*

**WATT MANUFACTURING CO.**  
STERLING, ILL.



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**Our NEW Water Heater Catalog is NOW READY!**

for distribution to furnace installers and plumbers.

It completely describes and illustrates the well-known Maltese Line, as well as the ever-popular Geyser and the entirely new Grutter Heaters.

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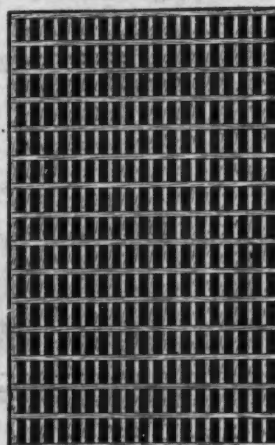
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Founded 1880

# American Artisan

The Warm Air Heating and Sheet Metal Journal

Yearly Subscription Price:

United States .....\$2.00  
Canada .....\$3.00  
Foreign .....\$4.00

Published EVERY SATURDAY—to Promote Better Warm Air Heating and Sheet Metal Work

## PORTER - SPOFFORD - LANGTRY CORPORATION

139 North Clark Street, Chicago—Telephone Central 7670

Fred D. Porter, *President* John C. Langtry, *Vice-President* Howard H. Bede, *Secretary*  
Editor: G. J. Duerr Business Manager: Etta Cohn

Advertising Representatives:

Charles E. Kennedy — J. F. Johnson

New York Office: 1403 Pershing Square Bldg., 100 E. 42nd St. Tel. Ashland 5342

F. R. Whitten, *Eastern Representative*

Vol. 98, No. 11

CHICAGO, SEPTEMBER 14, 1929

\$2.00 Per Year

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**P**LENTY of sheets for every purpose, carefully protected as to quality and finish, are in stock at the Ryerson warehouses ready for immediate shipment. Whether you need a bundle or a carload, plain, galvanized, or special rust-resisting sheets, your order will have quick, personal attention.

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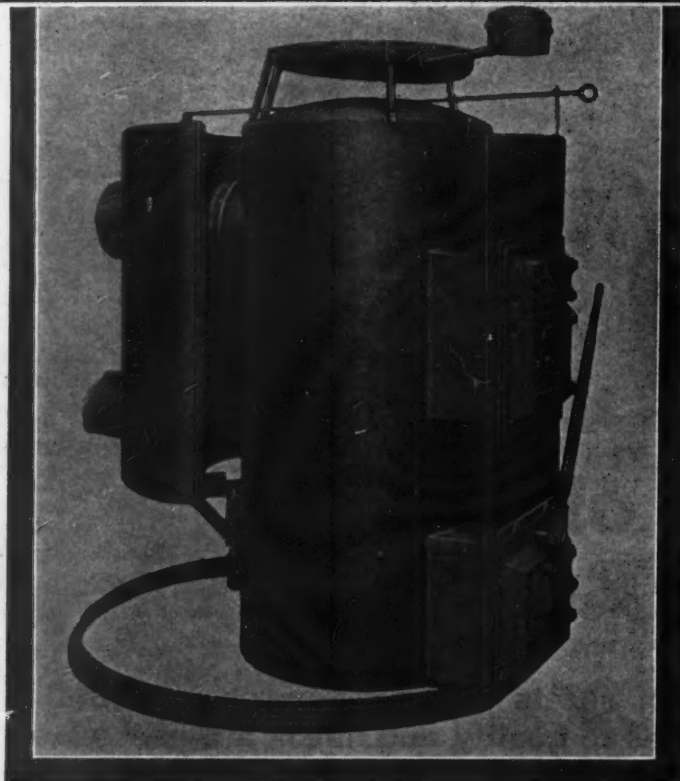
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## STEEL - SERVICE

Say you saw it in AMERICAN ARTISAN—Thank you!

# Profits in 1931 from Today's Business



**WATERBURY**  
**SEAMLESS FURNACE**  
 REG. U.S. PAT. OFF. PIPE OR PIPELESS

**W**ATERBURY Dealers know that every sale they make is a boost. The wonderful satisfaction that the Waterbury Seamless Furnace gives their customers means more profits in dollars and cents—adds more to their reputation—than any other thing. Home owners talk to their friends about the Waterbury—they are actually *salesmen* for you.

There are three outstanding reasons why the Waterbury stands head and shoulders above the field—1. *Seamless Heavy Steel One-Piece Construction*, oxy-acetylene welded, to insure permanent gas-tight body; 2. *Controlled Humidity*, which evenly distributes moisture to every room, and, 3. *Outstanding Efficiency*, a special, full-size seamless steel radiator for every size furnace, stepping up heating capacity and increasing fuel economy.

These, and other improvements and refinements, are the reasons the Waterbury gives such complete satisfaction to owners. They are the reasons you will profit in 1931 from Waterburys installed today.

*Build your business with an eye to the future. The Waterbury Agency will do it. Send for our proposition at once.*

**THE WATERMAN-WATERBURY CO.**

1122 Jackson St. N. E.

Minneapolis, Minn.

*Complete Stocks Carried In*

Philadelphia  
 Kansas City

Pittsburgh  
 Denver

Chicago  
 San Francisco

New Orleans  
 Seattle

Mention **AMERICAN ARTISAN** in your reply—Thank you!



# American Artisan

The Warm Air Heating and Sheet Metal Journal



Vol. 98

CHICAGO, SEPTEMBER 14, 1929

No. 11

## Let Football Season Tie-Up Sell Warm Air Heating Service For You!

### Cold Weather's Approach Makes Window Display Arrangement Easy

**D**ID you ever become so accustomed to a thing that you just naturally took it for granted? Of course you have. Everybody does. It is a way we humans have.

The public has seen so many dirty, ill-kept sheet metal and warm air heating shops and window displays that it, too, has come to take them for granted. In fact one live-wire contractor who recently built himself a new shop with an up-to-date window display and sales room next door to his old place told me that so accustomed were folks to seeing his old, dirty place that many of them now come into his new place to ask where he has moved to. This contractor makes a special effort to change his window displays with the seasons. He finds that it pays. "People are naturally interested in the approach of each season," said he, "and when they see some reference to the coming season, their attention is quite naturally arrested and their interest aroused."

The most general objection voiced by sheet metal and warm air heating contractors is that their industry and their products do not lend themselves to displays that take ac-

*Any kind of show window space is expensive—too expensive, in fact, to permit it to loaf on the job.*

*Too many warm air furnace installers and sheet metal contractors view their window displays from the angle of expense. That is, of course, a mistake. They see only the cost in time, labor, and materials, when, as a matter of fact, the good, well-arranged window display helps them to reduce the overhead per unit of sale by creating more sales.*

*Let's get the habit of looking upon our windows as adjuncts to selling, and then make a strong effort to give them every opportunity to make sales for us.*

count of the approaching seasons. In this belief they are mistaken, of course, because there is no season which does not afford some sort of tie-up with both sheet metal and warm air heating.

The contractor mentioned above finds no difficulty in changing his windows as frequently as he desires. He not only makes use of the approach of the seasons, but plays up current events that are of universal interest. When Lindbergh was in the public eye, a large photograph of him was placed in

the window near an attractive frame filled with sheet metal products.

The approach of the foot ball season gives one of the best possible tie-ups for the warm air heating industry. Foot ball is on everyone's mind, including young and old. And it is no difficult task to tie foot ball up with warm air heating. What about eating dinner in a nice cozy warm air heated home after a cold seat at the game? You can't think of anything that would lend itself to a better purpose.

Then comes the harvest season, Thanksgiving day and Christmas. The object is to picture the human doing the things that he likes to do and tie them up with the greater enjoyment of those things made possible in the adequately warm air heated home.

Now it's not going to require a department store window to do these things. They can be accomplished in even the smallest possible space, and the best part of it all is that the cost when compared to the results obtained is negligible.

Let's get busy and make folks conscious of the fact that real warm air heating and sheet metal

(Continued on Page 67)



E. A. Rieck

# Demonstration PULLS Summer Furnace Business For Rieck Sheet Metal Co.



B. R. Rieck

ONE SURE way to get business is to go out after it. The progressive warm air furnace installer of today knows that there are ways and means of influencing people to get their furnace work done in the summer months, when things are naturally a little slow. They know, of course, that it will require extra effort to do this, but they are willing that it should, so long as they can accomplish their object.

They reason that the furnace business, being as it is seasonal in nature, the more business they can get during the off months the better they will be able to handle the rush which is bound to come as soon as cold weather sets in.

They also realize that the warm air heating business is somewhat peculiar and rather hard to advertise to the public for the very reason that it is seasonal and at best a subject with which most people do not wish to be bothered any more than necessary.

As was intimated in the beginning of this

article, progressive furnace dealers have ways and means of inducing folks to have their furnace needs attended to before the fall rush comes on, and one of these is the demonstration. The Rieck Sheet Metal Company, Hydraulic at Pine Street, Dayton, Ohio, recently made very good use of the demonstration method of getting furnace prospects. They advertised extensively

in Dayton local papers a "Clean Heat Demonstration." The demonstration was held at 39 East Third Street, Dayton. The inducement to get people into the store was an offer to give away a furnace free at the close of the demonstration. W. A. McGraw and P. D. Arnold of the Midland Furnace Company were present and assisted with the demonstration.

The affair lasted one entire week. The accompanying illustrations show the interior and exterior views of the quarters in which the demonstration was held. A reproduction of some of the advertisements used are also made.

This undertaking proved mighty successful and the company obtained a valuable, live prospect list, in addition to making many actual sales from the floor.

The Rieck Sheet Metal Company has had a long and successful career. It is one of the old stand-bys in the business history of Dayton. It began operations way back in 1893,



## WHICH ?

# SHORTER WORKING HOURS~



**Demonstration**  
**June 10th**  
**to 20th**  
**39 East Third St.**

LET'S suppose we are reading across the front page of our favorite paper the glaring headline — **HOUSEWIFE STRIKES FOR SHORTER WORKING HOURS.** What would you think?

One of us would say it was because she didn't have a new fur coat; another because Willie's toys were scattered all over the house, or Hubby came home late for dinner. Few would point at the Dirty Heating Plant and say "You are the real reason."

How many extra working hours does your heating plant create? How many times is it necessary to remove dirt and dust from the furniture or call the cleaner for draperies? These are the things that make the housewife's working hours longer, unenjoyable. But they can be eliminated. "Cleaner Heat" is here! No more extra dusting, no more extra cleaning. Let us tell you how. You can have this Cleaner Heating Plant installed—at a price within reason.

Just phone us or come in today.

Yours for "Cleaner Heat"

**The RIECK SHEET METAL Co.**  
DISTRIBUTORS      GARFIELD 353  
DEMONSTRATION—39 EAST THIRD STREET

**ONE OF THESE FURNACES GIVEN AWAY FREE DURING THIS DEMONSTRATION**

One of Advertisements Used to Attract Public to the Display



Window Display Announcing Demonstration

the year the World's Fair was in Chicago last, due to the energy and ambition of H. F. Rieck, and it is now being carried on by Mr. Rieck's two sons, B. R. and E. A., who take after their father.

In length and quality of service, the company takes rank among a select list of Dayton enterprises which have been conceived and organized on a firm foundation and have always looked to the future rather than the reaping of immediate profits.

During its career the Rieck company has handled many of the major sheet metal jobs in Dayton and other parts of Ohio, yet it has always lived up to its claim that no job is too small for it to handle efficiently.

The firm was founded in 1893 by the late H. F. Rieck, an experienced sheet metal and furnace mechanic, in a small shop at 515 South Wayne Avenue. His two sons, B. R. and E. A., who are the present proprietors, began to help him in the shop and learned the trade there.

Business grew rapidly and a lot was purchased and a three-story building erected at 506-8 South Wayne Avenue, where the firm operated for a number of years very successfully.

The Dayton flood came as a set-

back to the concern and in that same year the home of the company was destroyed by fire. The business was moved temporarily to 524-6 South Wayne Avenue.

In the fall of the following year a building was acquired at the corner of Monument Avenue and Taylor Streets. Then the war came and the Dayton Metal Products Company, engaged in the production of war munitions, desired that site and the Rieck company sold it

at that time.

Forced once more to look for new quarters, the Rieck company finally decided on its present home at Hydraulic and Pine Streets. Only a portion of the building was available. Later it was acquired in its entirety by purchase. The structure contains two stories and a basement and every square foot of space is required to handle the large business that has been built up during its years of service.

On January 1, 1923, the company was incorporated, with H. F. Rieck withdrawing from active participation. B. R. Rieck became president and E. A. Rieck secretary and treasurer of the firm.

Some of the large sheet metal contracts which it has completed include the Masonic Temple, a similar building in Portsmouth, Col. White School, Belmont School, Kiser School, Refiners' Building (now under construction), Riverdale branch of the Dayton Savings & Trust Company.

Installation of the cornice work and roofing on the U. B. Building tower also was handled by Rieck. This was regarded as a dangerous task but was handled to the entire satisfaction of all, without an accident, which is just another feather in their cap.



Interior of Display Room of Rieck Sheet Metal Co.

# A ONE-ACT PLAY

## In Which a Warm Air Furnace Installer Enters Business

By George Duerr

**T**HIS is a one-act play staged in the place of business of one A. E. Bogen, Columbus, Ohio, who, it has become known, has signified his intention of entering the business of installing warm air furnaces.

Seated opposite Mr. Bogen is one A. E. Munkel, chairman of the committee of the Ohio State Sheet Metal Contractors' Association, appointed to wait upon

business of installing furnaces, and merely wanted to assist you in getting started right at the outset so that you will have a better chance of making a success of your business. It is to our advantage to see you succeed rather than fail in this business and we want to do everything we can to help you.

We merely want to make sure that you understand

**There are some men who go into business with little or no conception of what they are going to be up against. Because they were not in contact with executive details while working as mechanics, many embryo business men do not give the executive side of the business sufficient consideration, thinking that such details will somehow take care of themselves.**

all newcomers in the furnace installing business for the purpose of determining whether the entrant fully understands what is required of him as a man in business for himself and also to determine his general fitness to conduct a business for the public good, assuming, of course, that the newcomer is fully qualified as a mechanic to carry on the mechanical side of the business at the outset.

**The Time Is 10:30 A. M.,  
March 15, 1933**

Bogen (*after preliminary greetings and salutations have been gone through*): "To what am I to attribute this totally unexpected visit from you, Mr. Munkel?"

Munkel: "At the outset I want you to understand thoroughly that in coming down here to see you I am not trying to snoop into your private affairs. Our association learned that you were going into the

what some of the costs are that you are going to be called upon to meet before you can hope to take any profit from your business. Now if you will permit me to go into some of these costs with you I can perhaps explain a lot of things that, due to his inexperience, are not usually apparent to the newcomer in the business."

Bogen: "By all means, Mr. Munkel, go ahead. I'm more than anxious to get started right on this thing. I have been on the point of calling on you several times for this very purpose, but rather hesitated

because I thought you would not take it in good part."

Munkel: "All right then. How much business do you think you should do per year in order to make it worth your while to go into business for yourself?"

Bogen: "I must do at least \$50,000 worth of business per year."

Munkel: "How much capital have you got to start out with?"

Bogen: "I have \$10,000."

Munkel: "How much is that money worth if you were to invest it in bonds or other securities?"

Bogen: "About 6 per cent."

Munkel: "What rent do you pay for this building?"

Bogen: "I have rented a building to house it at a monthly

rental of \$75."

Munkel: "How much money can you make selling furnaces for someone else?"

Bogen: "About \$200 a month if I work hard."

Munkel: "Are you going to keep your own books or will you hire this work done? How much will you pay the bookkeeper?"

Bogen: "I can hire a good blonde for \$100 per month."

Munkel: "How about a truck driver?"

Bogen: "I've engaged one at a salary of \$100 a month."

Munkel: "What do you figure your telephone will cost per month?"

Bogen: "About \$10."

Munkel: "How much do you figure your stationary will cost per month?"

Bogen: "I'm figuring on about \$10 per month for that item."

Munkel: "What do you think your auto expense will amount to?"

Bogen: "I think \$80 per month would be about right."

Munkel: "Are you going to do any advertising?"

Bogen: "Yes; I've got an item down there for \$25 per month?"

Munkel: "Will you listen to any of those pleas for donations?"

Bogen: "I'm figuring \$10 a month as a fair amount."

Munkel: "Are you going to work in the dark or do you figure that your blonde bookkeeper will provide light enough?"

Bogen: "No, I can't trust the blonde that far, so I put down \$20 a month for light and power."

Munkel: "Are you going to do any entertaining?"

Bogen: "I'll entertain my competitors at the rate of \$20 per month."

Munkel: "How much for workmen's compensation insurance?"

Bogen: "I figure that item at about \$15 per month."

Munkel: "Are you going to insure your stock at all?"

Bogen: "Yes; I think about \$10 per month ought to cover that."

Munkel: "Is your machinery and tools going to depreciate any?"

Bogen: "Yes; I'm writing off \$40 per month on that."

Munkel: "Are you taking into consideration depreciation on merchandise?"

Bogen: "Yes, I figured that would amount to about \$20 per month."

Munkel: "Are you going to have any bad debts?"

Bogen: "I'm going to try not to, but to be on the safe side I'm setting aside \$25 a month on that."

Munkel: "Are you ever going to have to go back to a job?"

Bogen: "Well, I'm setting up a reserve of \$25 a month to take care of that."

Munkel: "How about going back for materials?"

Bogen: "I'm allowing \$25 a month for that."

Munkel: "Now, you seem to have everything pretty well taken care of, but taxes."

Bogen: "As near as I can calculate, this item of taxes is going to cost my business about \$40 per month."

Munkel: "Well, Bogen, you seem to have a pretty good idea of what this business you are starting is going to cost you. But there is just one more question that I want to ask you before closing. Where is the money coming from that you are going to pay these expenses with?"

Bogen: "In order to meet these business expenses, which I shall conveniently term 'overhead,' I've got to realize that there is a certain minimum price at which I can take work and below which I dare not go if I expect to make a go of my business. I also realize that before I can declare a profit from my business all of these expenses of running the business must be paid. Therefore I have established a certain definite price which I must get from the customer if my business is to have a reasonable certainty of showing a profit. If I take work at a figure lower than that established, I might as well not have the trouble of doing the work because I won't make any money at it anyway. That is very easy to figure out."

#### Tabulation of Monthly Costs of Doing Business

Munkel: "After you have been in business a little while you will find that it is a very difficult thing to know with any degree of accuracy just what your item of non-productive labor is going to be. In the winter months these hours of non-productive labor mount up pretty fast when the roads are bad and when any one of a half dozen similar delays are bound to occur. Suppose, just to make things a little easier to see, that we have a tabulation of the items which you have found properly belong in the overhead cost of the business—

Interest on investment of \$10,000 at 6 per cent.....	\$ 50.00
Rent on building.....	75.00
Proprietor's salary.....	200.00
Bookkeeper's salary.....	100.00
Truck driver's salary.....	100.00
Telephone.....	10.00
Stationery and printing.....	10.00
Advertising.....	25.00
Auto expense.....	80.00
Donations.....	10.00
Light and power.....	20.00
Entertaining.....	20.00
Workmen's compensation insurance.....	15.00
Insurance on stock.....	10.00
Depreciation on tools and machinery.....	40.00
Depreciation on merchandise.....	20.00
Reserve for bad debts.....	25.00
Reserve for bad jobs.....	25.00
Reserve for go-backs.....	25.00
Taxes.....	40.00
	<hr/>
	\$900.00

"Now that shows that you are going to have an overhead per month of \$900. So your annual overhead charge to the business will be  $12 \times \$900$  or—

Overhead.....	\$10,800
Productive labor.....	10,800
Merchandise.....	25,000
	<hr/>
	\$46,600

"Figured on a percentage basis, the overhead on this business would run about 23.5 per cent. And you certainly seem to understand fully what the fixed charges are that your business must meet. Go to it. I wish you every success."

Bogen: "Thank you very much, Mr. Munkel. I surely appreciate your calling on me and I am going to do my best to uphold the dignity of the industry and be as good competition for you as I possibly can. One of the first things I'm going to do is to make application for membership in your association. I think the work you men are doing in a collective way and the interest you are showing in the newcomers is very noble. It is the kind of thing I hoped I would find, but had little confidence that I actually would."

Munkel: "I am sure that you will find the boys in the organization a fine bunch to associate yourself with. If we can be of any further assistance to you in getting your business launched, do not hesitate to call upon us. We want to see you succeed, and we also want to help you all we can."

# CONSTRUCTING <sup>T</sup><sub>h</sub><sub>e</sub> ISOMETRIC

## CIRCLE <sup>a</sup><sub>n</sub><sub>d</sub> FIGURE

By A. Kealer, Instructor,  
Sheet Metal Dept., Washburne Trade School

**I**N the Sept. 7th issue of AMERICAN ARTISAN I demonstrated the method of drawing square figures and articles isometrically. In this issue I will show how to draw circular figures and articles isometrically.

Figures 1 and 2 show a geometric square and a geometric circle. Figures 3 and 4 show an isometric square and an isometric circle.

In order better to understand the method of drawing isometric circles, notice carefully Figures 5, 6, 7 and 8, where the successive steps to be taken are shown.

First, draw an isometric square to dimensions given, as shown in Figure 5, and using the 60° triangle, place it against the tee square and draw lines from point 1 to D and from point 2 to A.

Second, reverse the 60° triangle and draw lines from 1 to C and from point 2 to B as shown in Figure 6. Mark the points so located A-B-C and D and 1-2-3 and 4.

Third, set the compasses from 1 to C, and with the pin point in 1 as a center, draw the arc from C to D, as shown in Figure 7. Reverse the compasses and with the pin point in 2 as a center, draw the opposite arc from A to B.

Fourth, set the compasses from 3 to C, as shown in Figure 8, and with the pin point in 3 as a center, draw the arc from C to A. Likewise set the compasses from 4 to B

and with the pin point in 4, draw the arc from B to D. Two lines connecting A and D and B and C will show the two diameters crossing each other through the center of the isometric circle. This completes the isometric circle.

Figure 9 shows a 2½-inch cube with a 2-inch hole cut in one of the vertical sides. The method explained above is for an isometric circle, placed in a horizontal position.

The student should draw an isometric circle on side C of the cube, which is the top side and in a horizontal position. At the same time he should study side A of the cube, which is in a vertical position, and follow the points indicated to draw

the isometric circle in that position. By a little manipulation of the 60°-60° triangle, he will soon discover the proper way to do it. For side B, the triangle should be placed in reverse position, to the way it was held in side A.

Figures 10 and 11 are additional exercises. After the student has mastered drawing these designs with the instruments, he should practice making them free hand or without any other tools but the lead pencil.

### Wisconsin Sheet Metal Association Considers Chamber of Commerce Memberships

The Master Sheet Metal Con-

tractors Association of Wisconsin held its regular monthly meeting in Milwaukee September 4th, 1929, according to Walter A. Belan, secretary.

The meeting was called to order by President Henry Geussenhainer with the following members present:

Paul Biersach, C. C. Tolg, Aug. Zindars, Henry Geussenhainer, Wm. Gehrke, W. A. Belau.

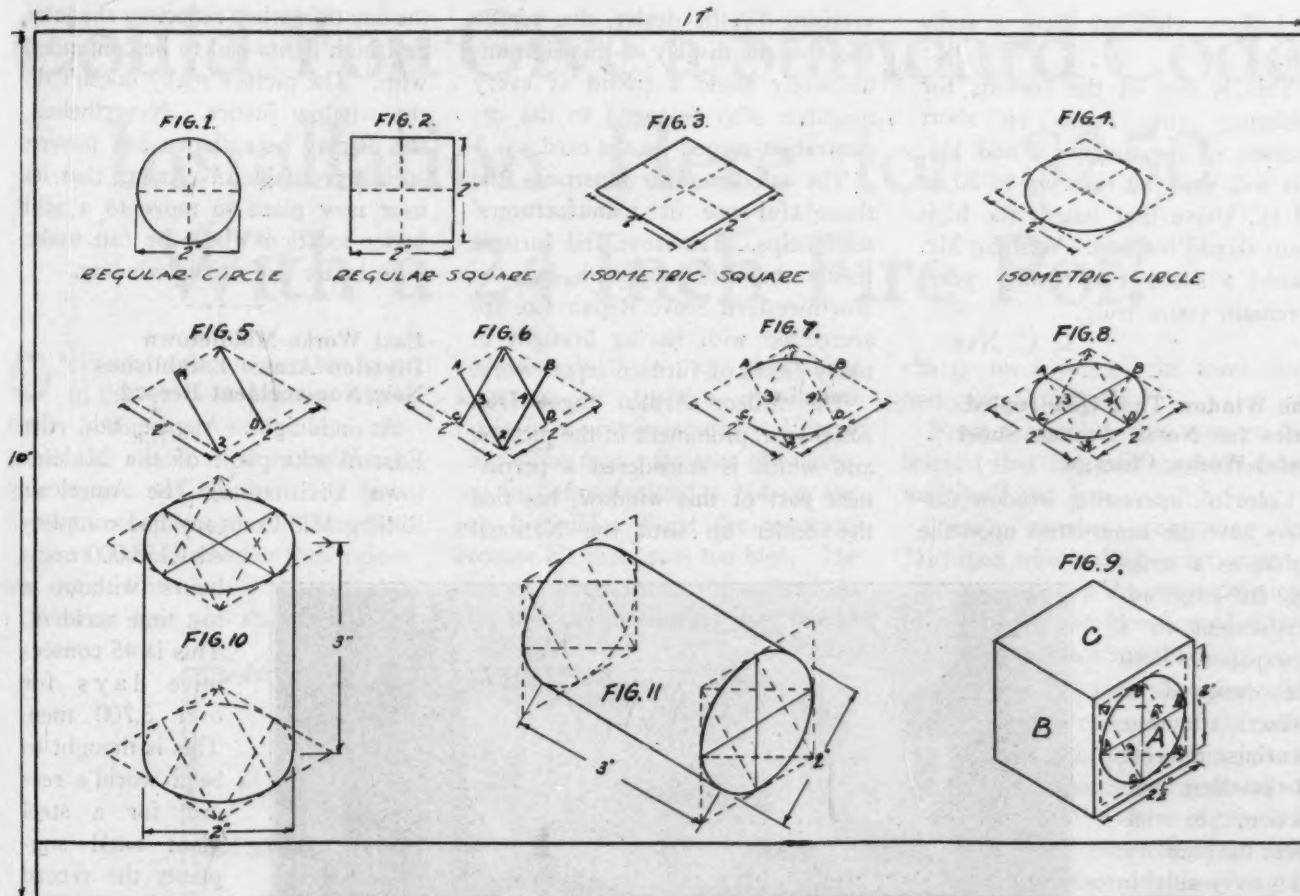
A letter from the Wisconsin State Chamber of Commerce was received by the Association soliciting membership. Some of the activities of the Chamber of Commerce are Publicity, Legislation, Transportation, State Development, Research, and Organization. The minimum fees are \$25.00 plus \$1.00 subscription to the Wisconsin Journal of Commerce. After a general discussion Paul Biersach offered to investigate the advisability of the association joining and report at the next meeting.

Application for membership of Louis Moede of Bonduel, Wisconsin, recommended by Robert Gehrke of Shawano, was accepted and motion made and carried that he be put on the rolls as a member.

Letter was received from the Department of Commerce, Bureau of Standards, asking for results obtained with Simplified Practices. This communication was referred to Otto Geussenhainer as a committee of one, for a report at the next meeting.

A general discussion followed, with comments on the new Sheet Metal Practice Book.

*Mr. Kealer informed us on his recent visit to the office that the Washburne Trade School is preparing to reopen its night school courses. The school has courses in practically all branches of industrial activity, and not the least of these classes is that in sheet metal work over which Mr. Kealer presides.*



Illustrating Procedure in Constructing the Isometric Circle and Figure

**L. C. Nye, Athens, Ohio,  
Sticks to His Guns on  
Soldered Cross Seams**

Editor Artisan:

In reply to H. A. Daniel, Newburgh, N. Y., taking exception to the Nye way of laying tin roof or soldering the cross seams, I want to say it is up to the sheet metal contractor to do as he pleases, as I stated in the article of May 4, 1929. I have always soldered cross seam of standing seam roofs. I have looked these roofs over recently and worked on them. Some of them were laid 37 years ago this summer. I find them as smooth as when laid. I also noticed closely that the cross seams are just as they were soldered.

I find that the time of fooling with tin roofing not soldered cross seam gets one into trouble, especially where steep work is being done and the tonguing is done on the ground and courses carried up to the roof one at a time. The wind gets to blowing and gets the cross seams unlocked, also if there happens to be a space between the sheeting and the roofer should happen to step on

this place, it bulges down and opens the cross seam. If it is soldered, no harm is done.

On fat work, say  $1\frac{1}{2}$  inch to the foot pitch, the soldering of the cross seams makes a better job, because the water will soak in under the cross seam but if it is soldered the water cannot get through.

Different people have their ideas about doing sheet metal work, just as there are 700 different religions throughout the world and all think they are right.

As to the expansion and contraction, I disagree with Mr. Daniel. I have laid tin roofs with courses up to 100 ft. long. Just looked at the roof that appeared in the picture of May 4 and there were no cross seams broken.

The temperature in the state of New York and Ohio may be so much different that it might cause trouble. I am 60 years young and the coldest I ever saw it get in Ohio was 35 to 40 degrees below zero and it goes as high as 97 to 98.

As here in Ohio with round on each end and high in the middle

the courses taken from the cross lock seamer will wind more than in the state of New York where I learned my trade the shop had a Lyon and Conklin cross seamer that pounded the seam down as you describe and the first boss of this shop laid tin roofing without soldering the cross seams and the next boss started to soldering them and we made better time and the machine seemed to work all right, but the courser came out in wind so when I started a shop I bought a Burnett cross lock seamer.

I do not know what kind of cross lock seamer Mr. Daniel uses. If a double cross lock seamer is used the seam will straighten like they use here in Ohio for galvanized roofing, but this makes a raise in the seam and holds the water back on flatter roofs where courses are long, say 40 ft., or longer, I use a high seam tongue  $1\frac{1}{2}$  and  $1\frac{1}{4}$ , this holds the seam higher and will not flood when snow is on the roof and rain falls on the snow that causes more roof trouble in this section of Ohio than any other cause. It is nearly sure

to happen when we have a snow fall.

This is one of the reasons for soldering cross seams on short courses. I use tongues 1 and 1¼, this will work all right up to 30 or 40 ft., above that length the high seam should be used. Wishing Mr. Daniel a successful roofing year, I remain yours truly,

L. C. NYE.

### The Window That Quadrupled Sales for North Avenue Sheet Metal Works, Chicago

Colorful, interesting window displays have the same effect upon the public as a striking full-page advertisement in a newspaper. Both are designed to attract attention, to arouse interest, to produce conviction, to impress the memory, and to result in action. Both are subject to the same rules of success, and both can fail in their purpose through non-recognition of the same principles.

There is an interesting history behind this window. Prior to its use, the owner of the shop, operated in a rear building, on a seldom traversed side street, and maintained no window display.

Moving to a nearby car line street, and making effective use of the window has actually quadrupled sales for its owner.

The advertising card in the window foreground tells of a coming neighborhood social affair. It was considered exceptionally good ad-

vertising by the dealer, due to the fact that the display of this sign immediately made a friend of every neighbor who belonged to the organization named on the card.

The window also illustrates the thoughtful use of manufacturers' sales helps. The stove and furnace repair banners supplied by the Northwestern Stove Repair Co. are accredited with having brought in many pieces of furnace repair work.

The Milcor Armco Ingot Iron Shop sign, prominent in the picture, and which is considered a permanent part of this window, has tied the dealer up with the National

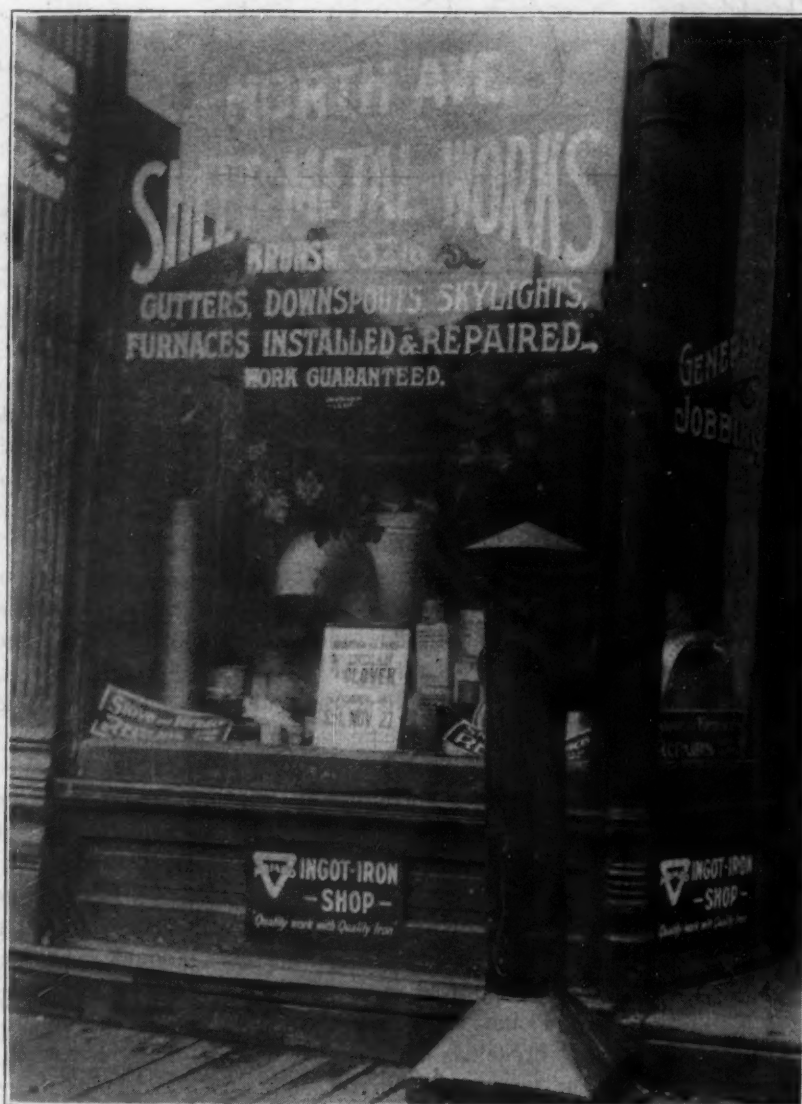
the day time when reflecting shadows and high lights had to be contended with. The picture really doesn't do the window justice. Nevertheless, the display here shown has proven such a profitable investment that its user now plans to move to a still better location where he can make even better use of his window.

### East Works Middletown Division Armco Establishes New Non-accident Record

At midnight, August 8th, the East Works plant of the Middletown Division of The American Rolling Mill Company had completed 1,158,000 man-hours without a lost time accident. This is 45 consecutive days for over 3,700 men. This is thought to be a world's record for a steel plant and supplants the record ending June 29th made by the Butler Works of the Columbia Division of Armco. The Pennsylvania plant completed 66 consecutive days but only 1,006,135 man-hours.

Large and small firms all over the country are taking steps to reduce the number of accidents to the absolute minimum. They realize that there is nothing more costly to them and to their workers when a worker loses an eye, a leg, an arm or is totally disabled by

a preventable accident. Most accidents are the result of carelessness or ignorance, and most firms have learned that education is the most effective way to prevent loss.



This Window Proved Conclusively to Its Owner the Value of Display

Armco advertising. These particular signs have brought in business from home owners living even as far as two miles distant.

The window picture was taken in

# Could You Give a Standard Code Installation Here for \$250 With a 24-Inch Fire Pot?

ONE very encouraging tendency in the warm air heating installation business, as we see it, is the increasing desire of furnace installers to find out whether they have proper conception of the Standard Code or not and whether their prices are out of line.

A short time ago there appeared

an article in these pages describing a warm air furnace installation made in a certain southern Illinois city. The man who sent the drawing in had submitted a bid on the job, but did not get the contract, because his price was too high. He wanted other furnace installers to give him the prices that they would

charge on a job of the same size and general character.

From the replies that came in he learned that the price he had given was itself too low.

Here's another contractor in Michigan who had a similar experience and submits the accompanying plans for the consideration of other warm air furnace installers.

He says: "If possible we would like to have an estimate of the selling price on this job. This job is one that is actually being installed in our city. We have figured a Standard Code job. We lost this job to a competitor who is giving a supposed Standard Code installation.

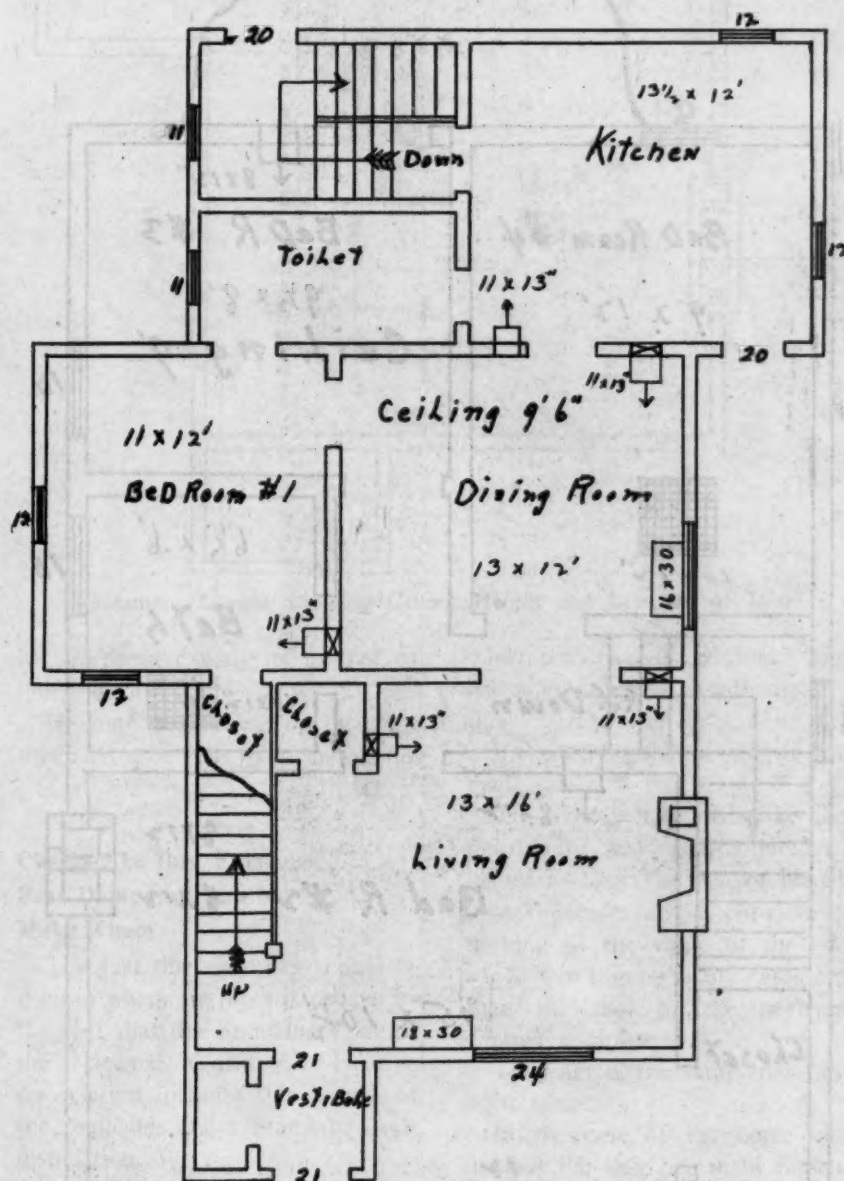
"The accompanying sketches also show the location of the registers. All registers on the first floor of this job were No. 56 National, with a  $3\frac{1}{4}$ -inch base extension, giving a  $6\frac{1}{2} \times 13$  throat opening in the register boxes.

"I also want to call attention to the fact that this installer used an  $18 \times 30$  wood face in the living room, with a 20-inch pipe. According to our calculations, the installer has an approximate area in this wood face of about 281 inches.

"In the dining room he uses a  $16 \times 30$  wood face, with an 18-inch pipe. This face has an approximate area of 250 inches.

"All wall pipes to the second floor rooms were  $3 \times 12$ . The toilet on the first floor was not heated, as it is assumed that sufficient heat will come from the kitchen or from the bed room No. 1 to heat this room. The building is of frame construction and faces south.

"If with the information I have given you you can put this proposition to your readers, asking them



First Floor Plan Showing Sizes of Rooms and Location of Warm Air Runs and Cold Air Returns

whether or not they think this is a Standard Code installation and if they could furnish a 24-inch fire pot furnace of any make and install it for a price of \$250, we will be deeply indebted to you."

Now here's an actual experience of a warm air furnace installer deducing himself with the idea that he is giving the customer a Standard Code installation.

It is hoped that furnace installation in all parts of the country will give the contractor who lost the job in this instance plenty of material so that he can go with it to his competitor and show him what other furnace installers think of his work and his understanding of the Standard Code and what constitutes a Standard Code installation.

In sending in your bids on this job, you need not mention your name in the article, although, of course, we would like to know from whom the correspondence comes for our own files.

The industry needs a lot of this kind of material, because many of these contractors are not taking these jobs wilfully at low prices. In many cases they just don't understand and a word from a competitor given in the spirit of constructive criticism will set the installer on the right road.

Perhaps you, too, have a problem of a similar nature. If so, send it in and let us try to help you solve it.

#### A. C. Tinker Finds Discrepancy in H. W. B.'s Bid of Furnace Job

In your issue of August 31st H. W. B. was expecting a mark-up of 33⅓ per cent on cost in dividing it by three (3) and adding the resulting figure, whereas this gave him a markup of only 25 per cent exactly from cost to sales price. If he sought a markup of 33⅓ per cent he should have divided cost price by 66⅔ per cent, 67 per cent to give that or \$146.06 approximately, which would have made his selling price \$442.60, assuming he has the correct size fittings and correct installation cost for the house in question.

If H. W. B. intended a markup of 33⅓ per cent on cost, he beat himself out of \$32.94 difference in resulting figures. He can prove this by taking 33⅓ per cent off his selling price and subtract it from that price, then see how much the remainder will be under his cost price which is his loss.

Selling Price:

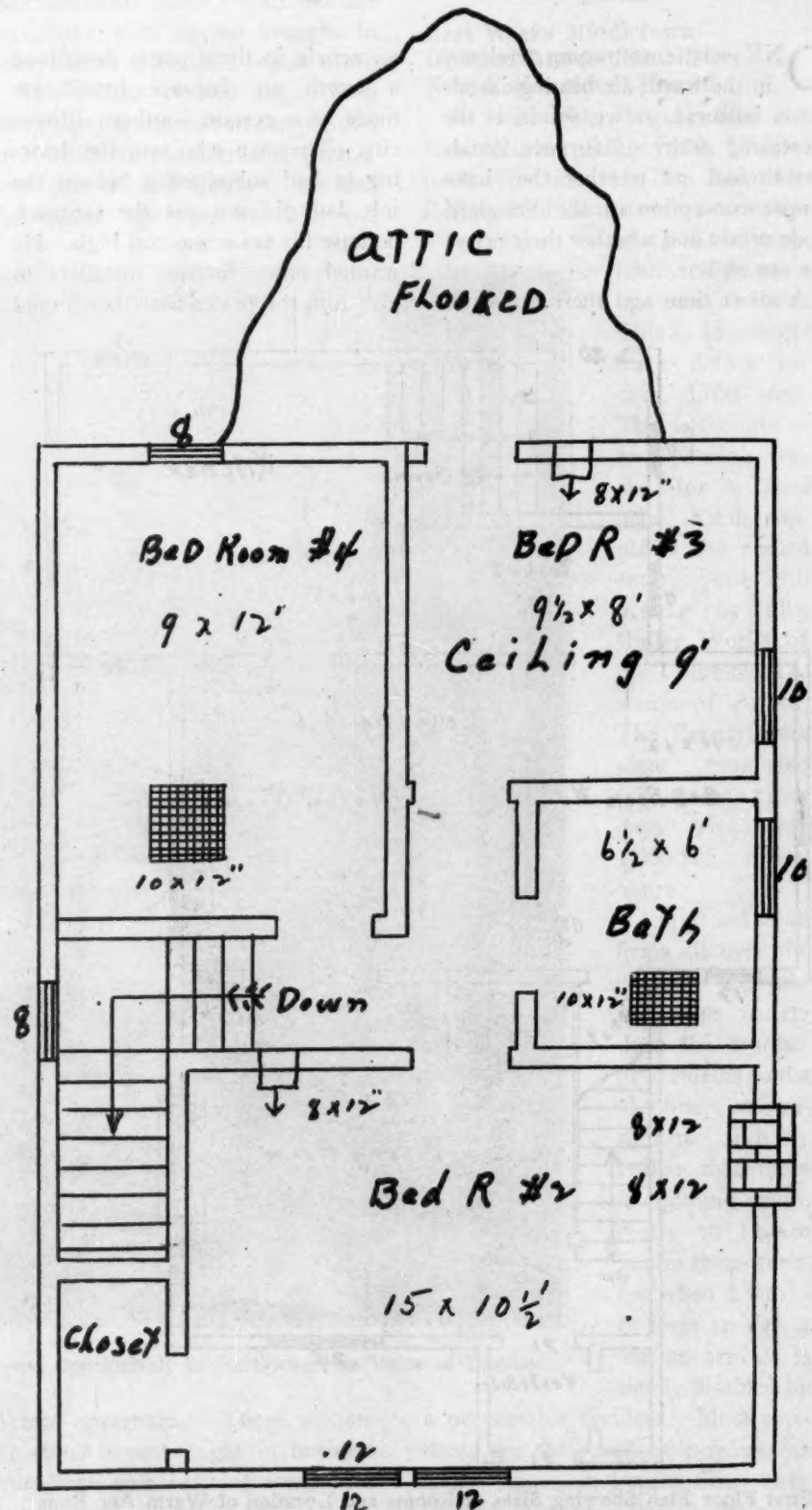
33⅓ per cent of \$395.39 = \$131.79  
\$395.39 — \$131.79 = \$263.60 below cost.

Cost:

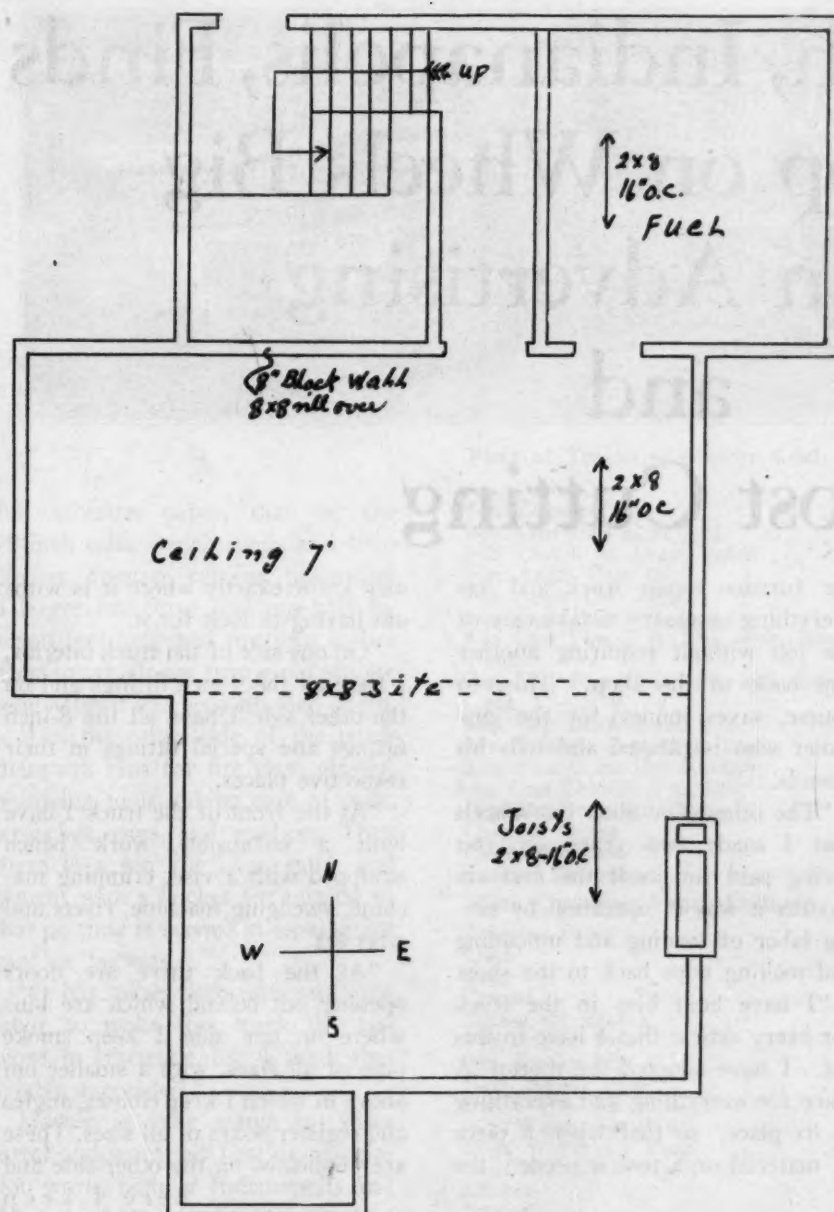
\$296.54 — \$263.60 = \$32.94 loss.

\$296.54 cost.

It is apparent he does not know



Second Floor Arrangement Giving Sizes of Rooms



Basement Layout Showing Ceiling Height and Location of Joists

his overhead exactly as to cost of doing business.

He may be making up on some other items he sells to cover this up.

A. C. TINKER.

### Cheaper to Buy Furnace Pipe Dampers Than to Make Them

The fact that dampers should be used in warm air pipes is proven by the fact that the Standard Code of the National Warm Air Heating Association includes this as one of the requisites for a Standard Code installation.

There are a certain number of furnace installers who buy clips and make their own dampers from scrap

which they have in the shop. There are a great many disadvantages to this. In the first place it is apt to cost them more than a damper ready made.

The average man will take about ten minutes making up a damper by use of a clip. The cost of his time plus the cost of the clips, to say nothing of the value of the scrap used, is in a great many cases more than the cost of the purchased damper complete.

Then again, the scrap may be of light gauge.

In the case of the home made damper the hole has to be punched on one side and then the pipe turned around and the hole punched on the other side. There is no guide to

do this and it is almost impossible to get them directly opposite.

### How Much Do You Spend For Advertising

How much to spend for advertising in one year depends on the amount of business done, and possible to be done, by any one sheet metal or furnace contractor in one year.

Authorities differ as to the amount that should be spent, but the majority believe that for the ordinary run of business, such as is done by the majority of shops, that a good average is from 2 to 3 per cent of the gross business done the previous

This, of course, is the amount for general advertising and does not include advertising a special or patented article. Then the amount is determined by the judgment of those interested.

Nor should 2 or 3 per cent be final, as it may turn out that a certain means of advertising is giving excellent returns, and to increase this advertising would be profitable, then, of course, it is desirable to add to the advertising appropriation.

The amount spent for advertising in the sheet metal trade runs from \$100 to \$10,000 a year.

### Jack Barclay Back From Vacation in South and Central America

Jack Barclay, salesman for the Charles Johnson Company, Inc., Peoria, Illinois, is back on the job again after a wonderful vacation spent in the South and Central American countries, including a sojourn in Los Angeles, California, and Atlanta, Georgia.

### FOOTBALL DISPLAY

(Concluded from Page 57)

service can be had in reputable merchandising establishments the same as other commodities. It can be done and is being done by progressive men in the trade. Particularly is this true with men in the trade who have in some time in the past or do now operate hardware stores. They have acquired the habit of making displays and they appreciate the value of them.

# Homer Selch, Indianapolis, Finds Tin Shop on Wheels Big Aid in Advertising and Cost Cutting

**S**OME warm air heating and sheet metal contractors may think that attention to detail is not very important in building a business. Homer Selch, 844 Virginia Avenue, Indianapolis, Indiana, is not one of them, however, for he has made capital out of the fact that the general public believe most of the jokes that are bandied about at the expense of the plumber by advertising his business from the standpoint that he never has to go back to the shop for anything once he is on the job.

Some two years ago Homer conceived the idea of having a tin shop on wheels in which he carried everything that a furnace or sheet metal man would need on the ordinary job. So well did the idea go over that this truck paid for itself in time saved in the short space of two years and now Homer has built himself a second truck on the same lines only a little larger.

What Homer has to say about this phase of the business can be read in the following quotation:

Homer says:

"This truck is made especially

for furnace repair work and has everything necessary to take care of the job without requiring another trip back to the shop. This, of course, saves money for the customer who is pleased and tells his friends.

"The other Tin Shop on Wheels that I made two years ago this spring paid for itself the first six months it was in operation by saving labor of loading and unloading and making trips back to the shop.

"I have built bins in the truck for every article that I have in this list. I have adopted the motto, 'A place for everything and everything in its place,' so that when a piece of material or a tool is needed, the

men know exactly where it is without having to look for it.

"On one side of the truck interior, I have all the 9-inch fittings and on the other side I have all the 8-inch fittings and special fittings in their respective places.

"At the front of the truck I have built a collapsible work bench equipped with a vise, crimping machine, swedging machine, rivets and rivet set.

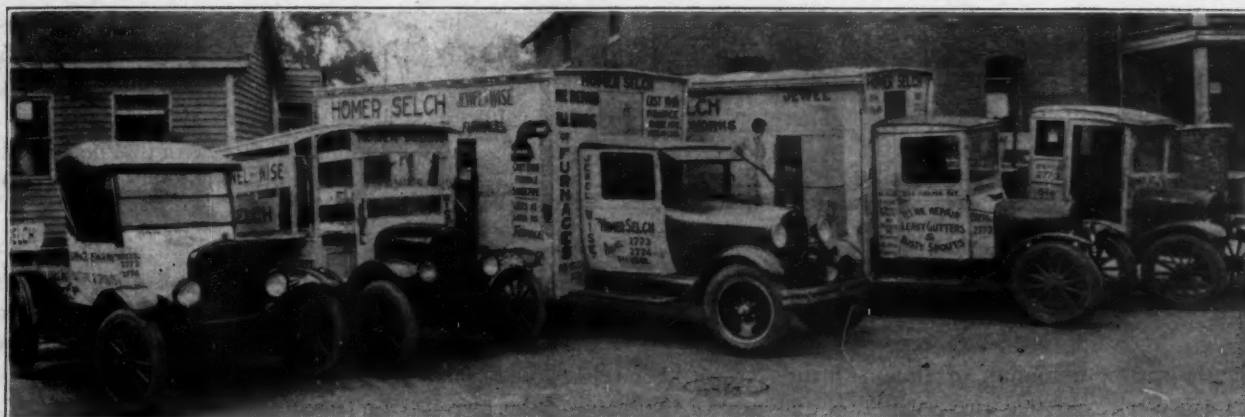
"At the back there are doors opening out behind which are bins where on one side I keep smoke pipe of all sizes, with a smaller bin above in which I keep elbows, angles and register boxes of all sizes. These are duplicated on the other side and

here I keep warm air pipes of all sizes. The doors at the rear close as does a door at the bottom which forms steps into the truck. A larger door covering the entire back of the truck is provided so that everything can be safely locked into the truck.

"On the outside of the truck I have built bins with doors that lock. On one side I have a bin



Rear View of One of Homer's Tin Shops on Wheels



Fleet of Trucks of Homer Selch

for asbestos paper, that is, the 18-inch rolls, 2-inch strips and strip elbows, furnace cement, paste and a larger bin three and one-half by seven feet long and fourteen inches deep in which we throw old smoke pipe after it has been mashed down.

"On the other side of the truck there are bins for fire clay, plaster, plumbing tools, taking care of coils, wrenches, caps, and washers. Then there is a bin for lime, sand, and cement with a bucket for mixing so that no time is wasted in looking for cans or buckets.

"It has taken both time and long labor to make this truck the last word in efficiency, but I think that I have succeeded."

Homer is very active in sheet metal and warm air heating association work, both in Indianapolis and throughout the state organization. In fact, he is President of the Indianapolis local association and has a rapidly growing business of his own to look after.

Here is a list of articles carried in truck.

#### Interior

9-in. Elbows  
9-in. Angles  
10-in. Elbows  
10-in. Angles  
10-in. Tees  
10-in. Dampers  
10-in. Checks  
10-in. Draw Bands  
9-in. Billigans and Tee  
8-in. Billigans and Tee  
9-8-in. Tee  
9-in. Smoke Pipe Collars  
9-in. Dampers  
9-in. Draw Bands  
9-in. Thimbles  
9-in. Tees  
9-in. Side Chev's  
9-in. Checks  
9-in. Cast Checks  
9-in. Cast Pipe 6 in. long  
9-in. Tee Cast

9-in. Elbows Cast  
9-in. Cast Pipe 12 in. long  
9-in. Cast 6 in. Draw Bands  
9-in. Angle Cast 45°  
9-in. Angle Cast 22½°  
9-in. Cast Pipe 2 ft. long  
9-in. Cast Pipe 2 ft. long with clean-out  
9-in. Cast Pipe 12 in. long with clean-out  
9-in. Cast Draw Bands 2 in.  
9-in. Thimble Cast 12 in. long  
9-in. Cast Collar for Furnace  
9-in. Cast Thimble 6 in. long  
Cleanout Door and Frame  
Cleanout Doors  
Cleanout Frames  
Furnace Directions

#### Bins Opening From Outside

Asbestos Paper  
Lime  
Sand  
Cement  
Bucket for mixing  
8-in. Smoke Pipe  
9-in. Smoke Pipe  
10-in. Smoke Pipe  
8-in. Warm Air Pipe  
9-in. Warm Air Pipe  
10-in. Warm Air Pipe  
12-in. Warm Air Pipe  
Elbows  
Angles  
Register Boxes  
Fire Clay  
Plaster  
Plumbing Tools  
8-in. Elbows  
8-in. Angles  
8-in. Tees  
8-in. Furnace Collars  
8-in. Thimbles  
8-in. Draw Bands  
8-in. Dampers  
8-in. Checks  
8-in. Side Check  
8-in. Cast Thimbles 12 in. long  
8-in. Cast Draw Bands 2 in.  
8-in. Cast Collar for Furnace  
8-in. Cast Thimbles 6 in. long  
8-in. Pipe Cast 2 ft. long  
8-in. Cast Pipe 2 ft. long with clean-out  
8-in. Cast Tees  
8-in. Cast Pipe 12 in. long  
8-in. Cast Pipe 12 in. long with clean-out  
8-in. Cast 6 in. Pipe  
8-in. 6-in. Draw Bands Cast  
8-in. Cast Angles 45°  
8-in. Cast Angles 22½°  
8-in. Checks  
8x8 Cast Cleanouts  
8-in. Cast Elbows  
Wire

Furnace Shakers  
Labels for Warm Air Pipe  
Jewel and Wise Parts  
Cal. Cleanout Caps  
Candles  
Assorted Nails  
Grate Holders  
Door Handles  
Regulators and Plates  
Chain and Pulleys  
Damper Clips  
Keyhole Saw  
Big Saw  
Hack Saw  
Electric Light Plugs and Extensions  
Fire Brick  
Ball Bearings for Furnace  
Cog Wheels  
Metal Screws  
Wood Screws  
Washers  
Groover  
Circle for Dampers  
Name Plates  
¼-in. Electric Drill and Grinder

#### Elkhart, Ind., to Be City of Next Indiana District Sheet Metal Meeting

The next district meeting of the Sheet Metal and Warm Air Heating Contractors' Association of Indiana is scheduled for Friday, September 13th, at Elkhart. Wallace Manrow, governor of the South Bend district, is in charge of local arrangements and is being ably assisted by Virgil Roland, first vice-president of the State Association and chairman of the Board of Governors. These two have enlisted the cooperation of the contractors of Goshen, Elkhart and South Bend and of a large corps of salesmen who have been working up interest in this meeting in all parts of the state.

This meeting will follow the lines of previous district meetings in that it will be sponsored by the state organization, but will be open to all of the elements of the sheet metal

craft, including non-members as well as members, jobbers, salesmen and manufacturers.

The meeting will be in the form of a dinner, probably at the Elkhart Hotel. The local committee have not yet divulged their plans for the evening, but it is certain that the dinner will be set late enough in the evening to allow contractors and salesmen to reach the hotel conveniently with a minimum of time lost from work, and that there will be no attempt to transact business of any kind or to arrange for the absorption of a heavy program by the guests. It is possible that preliminary plans for the coming state convention at Indianapolis, January 21-22-23, will be in shape to lay before the meeting, but whatever is done in this line will come merely as an item of interest to most of those present.

#### Here's Novel Advertising Stunt That Boosts Warm Air and Standard Code

The successful sheet metal and warm air heating contractors are constantly on the alert for novel method of keeping their business before the public.

William F. Wahler, 3715 Elston Avenue, Chicago, hit upon a scheme that would be a constant reminder to the home owners in his neighborhood that he deals in high class sheet metal and warm air heating service.

People are always interested in how hot or how cold it is. Therefore: large thermometer was erected on the outside front of the Diversey State Bank building and enclosed in a glass case. This thermometer was so arranged that considerable space was left on either side and below the mercury tube.

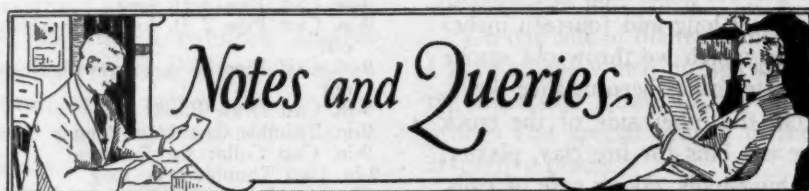
Mr. Wahler had inserted just below the mercury tube a 10x12-inch illustration of his window display suitably placarded and telling the folks of the neighborhood about the Standard Code and what it means as an insurance of good heating service.

This bank is located in a neighborhood of homes on the northwest

side of Chicago and, of course, the patrons of the bank are practically all home owners in that territory. Therefore the advertising value of this stunt is very large indeed.

#### Ralph O. Kramer Becomes V. P. of Fox Furnace Co.

Mr. Ralph O. Kramer, who for many years has represented The Fox Furnace Company in the territory between the Rocky Mountains and the Pacific Ocean, has been made a Vice President, according to a recent announcement from company headquarters at Elyria, Ohio.



#### Charcoal Sad Irons.

From Mrs. Jos. A. Pullin, Pacific, Missouri.

Can you tell me who makes charcoal sad irons?

Ans.—A. C. Williams Co., Ravenna, Ohio; Colebrookdale Iron Co., Pottstown, Pa., and Chattanooga Implement & Mfg. Co., Chattanooga, Tenn.

#### Buckles and Snap Rings.

From J. D. Garrison, 1028 Monroe Avenue, Huntington, West Virginia.

Please tell me who makes 1/2-inch buckles and 5/8-inch snap rings to be used on braided leather watch chain.

Ans.—North & Judd Mfg. Co., New Britain, Conn.

#### "Iron Fireman."

From Owensboro Sheet Metal Works, 900 W. Ninth Street, Owensboro, Kentucky.

Kindly advise us who makes the "Iron Fireman."

Ans.—It is made by The Iron Fireman Mfg. Co. of Portland, Oregon, who have an office at 3145 Superior Street, Cleveland, Ohio. Pattern Works, Decorah, Iowa.

#### Gas Burners for Furnaces.

From J. H. Barnett, Dodge City, Kansas.

Will you kindly tell me who makes gas burners for furnaces?

Ans.—The XXth Century Heat-

Few individuals in the Far West have done as much to further the interests of the Warm Air Heating industry, as Mr. Kramer, who is a familiar figure from Phoenix to Vancouver—from Salt Lake City to San Francisco.

As vice president, he will continue to supervise the western activities of The Fox Furnace Company and will continue to make his headquarters in San Francisco.

The Fox Furnace Company, a division of the American Radiator & Standard Sanitary Corporation, manufacturers of Sunbeam warm air furnaces and Sunbeam cabinet heaters.

ing & Ventilating Company, Akron, Ohio; Standard Heating and Radiator Company, 220 Penn Avenue, Pittsburgh, Pennsylvania; Wonder Worker Gas Appliance Company, 59 Main Street, Cincinnati, Ohio; Johnson Gas Appliance Company, Cedar Rapids, Iowa; Cleveland Gas Burner and Appliance Company, 3702 Superior Avenue, Cleveland, Ohio, and Columbia Burner Company, Toledo, Ohio.

#### Enameled Pressed Table Tops in Chicago

From R. L. Spellerberg and Son, 343 West 8th Street, Dubuque, Iowa.

We should like to know who in Chicago makes enameled pressed table tops.

Ans.—Benjamin Electric Manufacturing Company, 111 North Canal Street.

#### "Laurel" Furnace

From Carr Supply Company, 414 North Dearborn Street, Chicago.

Please advise us who makes the "Laurel" furnace.

Ans.—The Art Stove Company, Detroit, Michigan.

#### Plans for Sheet Metal Row Boats

From Walter H. Ziegler, 207 North Hackley Street, Muncie, Indiana.

Where can I purchase plans for sheet metal row boats?

Ans.—H. F. Thompson Boat and

# RANDOM NOTES AND SKETCHES

F. P. Elliott of Villa Park, Ill., stopped in to chat with me on Wednesday of this week. Mr. Elliott is well known throughout the Illinois territory, having sold warm air furnaces and stoves to the trade in this section of the country for many years.

\* \* \*

"I like this quaint little mountain village of yours, waiter," said Dave Farquhar while on his vacation recently. "I suppose I can get plenty of oxygen here?"

"Sorry, sir, but prohibition agents are very active around here."

\* \* \*

"The street-car service is rotten. Always overcrowded."

"Yes, but father, you got a seat, didn't you?"

"Yes, but your poor mother had to stand all the way."

\* \* \*

W. F. Wahler, 3715 Elston avenue, Chicago, is too busy to know whether times are slack or otherwise. Bill has one of the best looking warm air heating and sheet metal window displays and sales rooms in the city. And he sure keeps it clean, too, because if he doesn't Mrs. Bill gets after him. I saw him on Tuesday of this week and he was going strong.

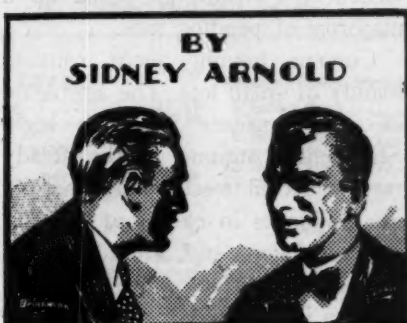
\* \* \*

"Conductor! Help me off the train," said Roy Harrison, Chicago. "Sure."

"You see, I'm stout and I have to get off the train backwards; the porter thinks I'm getting on and gives me a shove on again. I'm five stations past my destination now."

\* \* \*

J. A. Brandt, sheet metal instructor at Mooseheart, Illinois, whom I visited on Tuesday of this week, is in the process of moving his school into new quarters. When he has



completed his work he expects to have the finest equipped sheet metal shop in this part of the country. And from what I saw of it I haven't the slightest doubt but that he will more than attain his ambition. His motto is, "A place for everything and everything in its place." In order to be sure that the students return small tools to their proper places when they are through with them, Mr. Brandt has painted a picture of the tool in such a way that it coincides with the tool when the latter is in place. Mooseheart is certainly a great place, and every sheet metal man could learn a lot about the conduct of his business by making a visit there.

\* \* \*

I had a very interesting visit with Frank Staar of Frank Staar & Sons, 1473 North Halsted street, Chicago, on Thursday morning of this week. Mr. Staar spends considerable time in California and Europe these days. Although well advanced in years, he stands as straight as an arrow. He spoke of the changes that have come over the sheet metal industry during the time since he first entered that business and now. He is a very interesting character and full of sound, constructive ideas on business conduct

and successful methods. I enjoyed meeting Mr. Staar very much indeed.

\* \* \*

"I know something you don't," said the aviator with whom I was riding.

"What is that, may I ask?" I yelled back at him.

"You know the stick with which I run this crate?" he says.

"Yes," says I, "what of it?"

"It broke," he says.

"Broke?" says I.

"Broke," says he.

"Wow," says I, "that's serious, ain't it?"

He looks at me sour-like for asking such a foolish question.

"Furthermore," says the birdman, "our wing has broken."

"Zounds," I shouts, "you surely are the cheerful guy, ain't you?" Suddenly I felt the ship tremble and sway and a snapping sound came from behind me.

The aviator looks around and sighs. "There go the rudder and elevators," he says, reflective like.

"We might as well be up here with a rowboat now," I says, trying to be humorous. We were ten thousand feet up.

The aviator turned around and with a grin on his face states, "The engine has caught fire. Look," he says, "our wheels have fallen off."

I laughed at this statement. The ship was going down. I slapped the aviator on the back and said, "S'all right, kid," says I, "Be nonchalant, etc."

\* \* \*

The man was worrying. "Tell me about it," said his pal. "Get it off your chest."

"I wish I could," groaned the other. "I've got 'Marguerite' tattooed there, and the girl I'm engaged to marry is named Helen."



# Railroad Car, Rail Demand Better

Other Lines Apathetic and Mills Cut Backlogs Maintaining Seasonally High Ingot Rates—Steel Prices Being Reaffirmed

**R**AILROAD demand for finished steel is spirited. More than 1,100 cars were ordered in the past week, including 500 gondolas by the Chicago & Eastern Illinois, 300 subway cars by New York and 100 hopper bodies by the Wabash.

Fresh rail inquiry embraces 53,000 tons by the Chesapeake & Ohio and 22,000 tons by two western roads. By the end of the week fully 100,000 tons is expected to be on inquiry.

Other large tonnage consumers of steel are generally specifying up to the mid-September level, but their requirements are not noteworthy.

Farm implement manufacturers now are not expected to be active buyers before Oct. 1. General manufacturing demand is fair, but building steel needs are appreciably lighter.

As declining steel ingot production and the unfilled tonnage statement of the United States Steel Corp. indicate, the steel markets lack some of the snap that characterized the early months of 1929.

September can develop a sharp loss from the August rate of production and still the third quarter can beat out last year.

Sheet prices have been reaffirmed for fourth quarter at Chicago, with recent weakness in galvanized officially recognized. In the East some contracts have been made for black and galvanized at current levels of 2.85c and 3.60c, respectively.

Sheet mill operations and backlogs both are tapering moderately.

Tin plate is seasonally high. Strip steel production is down more sharply than most other finished lines, reflecting in large measure the automotive apathy. Cold finished bar prices have been formally reaffirmed, and some contracting is reported.

Sales of pig iron in the past few

weeks at Pittsburgh cleaned up a majority of pending lists.

Current buying again consists mainly of small lots. The aggregate of such business is fairly high. Shipments continue at the steady rate of recent weeks, but generally are no longer in excess of the rate of production, and additional new business is needed to prevent a reduction in backlogs.

Ford continues to order steel in large volume, but other automotive buyers submit only fair specifications.

Some tendency is shown by consumers to buy for a whole quarter, rather than for immediate needs, but forward purchasing is not general.

Contract orders for northern pig iron at Chicago are relatively light in view of the spot tonnage that has been requisitioned by melters recently.

Sales of pig iron at Birmingham are in small tonnages for early delivery.

Some orders have been received from outside districts for delivery during the fourth quarter.

Reduction of surplus stock of iron is noted, though it will take some time to make an appreciable imprint on the large tonnage piled up here.

Quotations are \$14 to \$14.50, base, Birmingham, the lower price for iron going to competitive districts.

Heavy buying of copper and lead have featured the nonferrous metal market during the past week.

Large sales of lead caused prices to advance on both the New York and East St. Louis bases.

## Copper

Sales have been large enough during the last two weeks to advance the price according to behavior of the market in the past.

Despite the fact that an asking

price of 18.25c, Connecticut, appeared, actual business was confined to the 18-cent level for regular customers, but tonnages were limited to what appeared to be actual consumers' needs.

On Tuesday, demand eased off with export buying holding at a fair rate and no premium prices quoted. It was reported in the market that the stability of prices at the 18-cent level was due to policy on the part of large producers. In one week sales had totaled 204,000,000 pounds to domestic users alone. These sales were said to have been sufficiently large to cause a price advance of a cent or more had the market behaved as in times past.

The strength in copper was reflected in secondary metal prices, copper wire quotations, and brass ingot prices. Rolled copper and brass mill products were held at unchanged levels.

## Lead

The market in this country has gained strength through recent heavy demand so that a little more encouragement from London might cause prices here to reach 7.00c, New York, say factors in the trade.

Demand has been heavy this week for both September and October needs. Lead ore prices were advanced to \$87.50 a ton at Joplin.

Total stocks of lead in the United States and Mexico on Aug. 1 were only 144 tons more than on the first of the preceding month.

## Zinc

The market has held quiet and prices unchanged with buying confined mostly to nearby needs.

## Tin

Light buying, mostly for early requirements, has caused prices to ease off this week.

## Antimony

The market has been quiet with prices easy to firm throughout the week.

# Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN is the only publication containing Western Metal, Furnace Supply and Hardware prices corrected weekly

Note: These Prices Are Chicago Warehouse Prices of Metal, to Which Must Be Added Freight to Cities Outside of Chicago.

## METALS

### PIG IRON

Chicago Fdy.,	
No. 2	\$30 00
Southern Fdy. No. 2	31 51
Lake Superior Charcoal	37 04
Malleable	30 00

### FIRST QUALITY BRIGHT CHARCOAL TIN PLATES

IC	30x28 112 sheets	\$32 50
IX	30x28	35 50
IXX	30x28 56 sheets	14 50
IXXX	30x28	15 50
IXXXX	30x28	17 00

### TERNE PLATES

IC	30x28, 40-lb. 112 sheets	\$36 70
IX	30x28, 40-lb. 112 sheets	39 70
IC	30x28, 35-lb. 112 sheets	32 30
IX	30x28, 35-lb. 112 sheets	35 30
IC	30x28, 30-lb. 112 sheets	30 35
IV	30x28, 30-lb. 112 sheets	33 00

<b>"ARMCO" INGOT IRON PLATES</b>	
No. 5 ga.—100 lbs.	\$4 15
3/16 in.—100 lbs.	4 05
1/4 in.—100 lbs.	3 85

### COKE PLATES

Coke, 80 lbs., base, 30x28	\$12 00
Coke, 90 lbs., base, 30x28	13 30
Coke, 100 lbs., base, 30x28	13 40
Coke, 107 lbs., base, IC	
30x28	13 75
Coke, 135 lbs., base, IX	
30x28	14 75
Coke, 155 lbs., base, IX	
56 sheets	8 50
Coke, 175 lbs., base, IX	
56 sheets	9 35
Coke, 195 lbs., base, IX	
56 sheets	10 35

<b>BLUE ANNEALED SHEETS</b>	
Base 10 ga.—per 100 lbs.	\$3 35
"Armco" 10 ga.—per 100 lbs.	4 15

### ONE PASS COLD ROLLED BLACK

No. 18-20	per 100 lbs.	\$3 85
No. 22	per 100 lbs.	4 00
No. 24	per 100 lbs.	4 05
No. 26	per 100 lbs.	4 15
No. 27	per 100 lbs.	4 30
No. 28	per 100 lbs.	4 30
No. 29	per 100 lbs.	4 45
No. 30	per 100 lbs.	4 65

<b>"ARMCO" GALVANIZED</b>		
"Armco" 24	per 100 lbs.	\$6 15

### GALVANIZED

No. 18	per 100 lbs.	\$4 40
No. 18	per 100 lbs.	4 55
No. 20	per 100 lbs.	4 70
No. 22	per 100 lbs.	4 75
No. 24	per 100 lbs.	4 90
No. 26	per 100 lbs.	5 15
No. 27	per 100 lbs.	5 25
No. 28	per 100 lbs.	5 40
No. 30	per 100 lbs.	5 50

### BAR SOLDER

Warranted 50-50 per 100 lbs.	\$31 25
48-52	30 51
45-55	29 25
Plumbers'	27 25

### ZINC

In Slabs	\$ 7 35
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### SHEET ZINC

Cash Lots (500 lbs.)	\$11 75
Sheet Lots	13 75

### BRASS

Sheets, Chicago base	24 1/2 c
Mill base	23 1/2 c
Tubing, brazed, Chicago base	31 1/2 c
Mill base	30 1/2 c
Tubing, seamless, Chicago base	29 1/2 c
Mill base	28 1/2 c
Wire, Chicago base	24 1/2 c
Mill base	23 1/2 c
Rods, Chicago base	22 1/2 c
Mill base	21 1/2 c

### COPPER

Sheets, Chicago base	27 1/2 c
Mill base	26 1/2 c
Tubing, seamless, Chicago base	30 1/2 c
Mill base	29 1/2 c
Wire, plain rd., 8 B. & S. G.	35 1/2 c
and heavier	36 1/2 c

## LEAD

American Pig	\$7 50
Bar	8 50

## TIN

Bar Tin	per 100 lbs.	\$53 00
Pig Tin	per 100 lbs.	52 00

## HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

### ASBESTOS

Paper up to 1/16	6c per lb.
Roll board	7 1/2 c per lb.
Mill board 3/32 to 1/4	7 1/2 c per lb.
Corrugated Paper (350 sq. ft. to roll)	\$6 00 per roll

### BRUSHES

Furnace Pipe Cleaning Bristle with handle	each \$9 75
Wire Cleaning Steel only, each	1 25

### CEMENT, FURNACE

American Seal, 5-lb. cans, net	\$ 45
American Seal, 10-lb. cans, net	85
American Seal, 35-lb. cans, net	3 25
Pecora	per 100 lbs. 7 50

### CHIMNEY TOPS

<b>Adams' Reelving</b>	
Wt. Doz.	Price Doz.
4 in.	31 lbs. \$11 00
6 in.	34 lbs. 11 50
7 in.	39 lbs. 12 50
8 in.	38 lbs. 15 00
9 in.	51 lbs. 16 50
10 in.	56 lbs. 18 00
12 in.	66 lbs. 22 00
14 in.	110 lbs. 36 00

### CLINKER TONGS

Each	\$1 50
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### CLIPS

<b>Damper</b>	
No-Rivet Steel, with tail pieces, per gross	\$9 50
Rivet Steel, with tail pieces, per gross	7 50
Tail pieces, per gross	2 40

### COPPER—Soldering

<b>Painted Roofing</b>	
3 lb. and heavier	per lb. 40c
2 1/2 lb.	per lb. 45c
2 lb.	per lb. 45c
1 1/2 lb.	per lb. 55c
1 lb.	per lb. 60c

### CORNICE BRAKES

Chicago Steel Bending	
No. 1 to 6B	Net

### CUT-OFFS

Gal. plain, round or cor. rd.	
26 gauge	30%
28 gauge	35%

### DAMPERS

<b>Yankee Hot Air</b>	
7 inch, doz.	\$1 40
8 inch, doz.	2 20
9 inch, doz.	2 60
10 inch, doz.	2 80
12 inch, doz.	3 50
14 inch, doz.	5 00

### ADAMS No. 1 CHECK

<b>Check and Collar Complete</b>	
3 inch, each	3 00
9 inch, each	3 25
<b>End Check Only</b>	
3 inch, each	1 60
9 inch, each	1 85
<b>Collar Only</b>	
3 inch, each	50
9 inch, each	65

### No. 2 CHECK

3 inch, each	1 00
9 inch, each	1 00
<b>10% Disc. on Adams No. 1</b>	
<b>Diamond Smoke Pipe</b>	
7 inch, doz.	\$2 50
8 inch, doz.	3 20
9 inch, doz.	4 80
10 inch, doz.	6 00

## Adams' Sheet Metal

7 inch, doz.	\$1 60
8 inch, doz.	2 20
9 inch, doz.	2 60
10 inch, doz.	2 80
12 inch, doz.	3 50
14 inch, doz.	5 00

## NAVES TROUGH

Galv. Crimpedge, crated	75-10%
Zinc, "Barnes"	60%

## ELBOWS

<b>Conductor Pipe</b>	
Galv. plain or corrugated, round flat Crimp,	
28 Gauge	60%
26 Gauge	45%
24 Gauge	15%

<b>Galv. Terne Steel</b>	
<b>Plain Rd. and Rd. Corr.</b>	
28 Ga.	80%
26 Ga.	45%
24 Ga.	15%

<b>Square Corrugated</b>	
No. 28 Gauge	50%
26 Gauge	35%

<b>Fortico Elbows</b>	
<b>Standard Gauge Conductor Pipe, plain or corrugated.</b>	
Not nested	70 & 8%
Nested Solid	70 & 5%

<b>Sq. Corr., A. &amp; B. &amp; Octagon</b>	
28 Ga.	50%
26 Ga.	35%

<b>Fortico</b>	
1", 1 1/4", 1 1/2"	45%

<b>Copper</b>	
16 oz., all designs	40%

<b>Zinc—</b>	
All styles	60%

## ELBOWS—Stove Pipe

<b>1-piece Corrugated, Uniform Blue</b>	
<b>"Milcor" No. 28 Gauge, Doz.</b>	
5-inch	\$1 15
6-inch	1 25
7-inch	1 75

## Special Corrugated

6-inch	\$1 00
7-inch	1 60

## Adjustable—Uniform Blue

<b>"Milcor" No. 28 Gauge, Uniform Blue.</b>	
5-inch	\$1 60
6-inch	1 75
7-inch	2 10

<b>WOOD FACES—50% off list.</b>	
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## FENCE

726-6-12 1/2 (100 rods)	\$23 63
1948-6-14 1/2 (100 rods)	43 63

## FILES AND RASPS

Heller's (American)	50-10%
American	60-10%
Arcade	50%
Black Diamond	50%
Bagle	50%
Great Western	50%
Kearney & Foot	50%
McClellan	50%
Nicholson	50%
Simonds	60%

## FIRE POTS

<b>Geo. W. Diener Mfg. Co.</b>	
No. 62 Gasoline Torch, 1 qt.	\$ 5 15
No. 3250, Kerosene, or Gasoline Torch, 1 qt.	5 50
No. 10 Tinner's Furn. Square tank, 1 gal.	11 30
No. 15 Tinner's Furn. Round tank, 1 gal.	10 70
No. 21 Gas Soldering Furnace	8 00
No. 110 Automatic Gas Soldering Furnace	10 50

## GALVANIZED WARE

<b>Pails (Galv. after made).</b>	
10-qt.	\$3 00
<b>Tubs (Galv. after made).</b>	
No. 1	5 75
No. 2	5 50

## GLASS

<b>Single Strength, A, all brackets</b>	
	55%
<b>Single Strength, B, all brackets</b>	
	87%
<b>Double Strength, A, all brackets</b>	
	55%
<b>Double Strength, B, all brackets</b>	
	87%

## HANGERS

<b>Conductor Pipe</b>	
Milcor Perfection Wire	35%
Milcor Triplex Wire	10%
<b>Eaves Trough</b>	
Milcor Steel (galv. after forming) from List	50%
Milcor Selflock E. T. Wire, List	10%

## HOOKS

<b>Conductor</b>	
"Direct Drive" Wrought Iron for wood or brick	15%

## HUMIDIFIER

<b>"Front-Rank," Automatic</b>	
In single lots	50-5%
In lots of 10 or more	50-5%
In lots of 25 or more	50-10%
Vapor pans, etc., each	50%

## LIFTERS

<b>Stove Cover</b>	
Coppered	per gro. \$5 00
Alaska	per gro. 4 75

## MALLETS

Tinners	
Hickory	per doz. \$2 25

## MITRES

<b>Galvanized steel mitres</b>	
28 Ga.	70
26 Ga.	60-20

## NAILS

<b>Cut Steel, base</b>	
	\$4 00
<b>Wire</b>	
Common Wire, L. C. L.	3 30
Cement Coated	3 20

(Continued on page 74)

# A Sales Argument

## by THE U. S. BUREAU

"In the case of buildings which are roofed, or roofed and clad with metal of substantial weight, or have metal frames: additional conductors can be dispensed with, due attention being given only to bonding and grounding such metal; and to caring for any upper portions which are susceptible to damage."

United States Bureau of Standards,  
Code for Protection Against Lightning,  
Bulletin No. 92, just issued.

Here's what that statement, endorsed by three outstanding engineering organizations, means to you. The ablest experts in the country say that a galvanized roof, properly laid and properly grounded, protects against lightning. Lightning rods are necessary only when non-conductive objects (brick chimneys, etc.) project above the roof. No expensive cables needed along the ridge. Two inexpensive conductors from the eaves, at diagonally opposite corners, take care of an ordinary building. This procedure cuts the cost of lightning protection to less than one half.

Any other roofing, except metal, should be equipped with full lightning protective system. But both lightning protection and a thoroughly satisfactory roof can be obtained at lowest cost by using *Galvanized Sheets* properly grounded.

The Bureau of Standards has placed this powerful sales argument in your hands. Do a good turn to every roofing customer who comes in your store by calling his attention to these facts and then watch your sales and profits on galvanized roofing grow.

THE SHEET STEEL TRADE  
EXTENSION COMMITTEE

Terminal Tower Building  
Cleveland, Ohio

# GALVANIZED SHEETS

## Protect *against lightning*

# Placed in Your Hands OF STANDARDS

**Now — Highest Authorities  
Endorse Lightning Protection  
Of Grounded Galvanized Roof**

"In the case of buildings which are roofed, or roofed and clad with metal of substantial weight or have metal frames, additional conductors can be dispensed with, due attention being given only to bonding and grounding such metal, and to caring for any upper portions which are susceptible to damage."

— United States Bureau of Standards, Code for Protection Against Lightning, Bulletin No. 92 just issued.

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Any other roofing, except metal, should be equipped with a full lightning protective system. But both lightning protection and a thoroughly satisfactory roof can be obtained at lowest cost by using galvanized sheets properly grounded.

If you already have galvanized roofing on your buildings or intend to re-roof, send for complete information (approved by lightning experts) on how to obtain real lightning protection at very little expense. Full, authentic, directions will be sent you free of charge.

THE SHEET STEEL TRADE EXTENSION COMMITTEE  
Terminal Tower Building  
Cleveland, Ohio

**GALVANIZED SHEETS**  
*Protect against lightning*

This booklet "How to Ground a Galvanized Roof Against Lightning" sets out the best method of grounding galvanized roofs for all types of buildings. Send for it free of charge. Also send for full instructions for grounding galvanized roofs.

The advertisement above will appear in the September issues of *The Country Gentleman*, *Successful Farming*, *Capper's Farmer*, *Southern Agriculturist* and *Agricultural Engineering*, reaching over 12,000,000 people. We shall be glad to send you enlargements of this advertisement free of charge to post in your store. Also full instructions for grounding galvanized roofs.

When writing mention **AMERICAN ARTISAN**—Thank you!

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PASTE		RIDGE ROLL	
Asbestos Dry Paste:		Galv., Plain Ridge Roll,	
200-lb. barrel	\$14 00	b'dld	75-15-5%
100-lb. barrel	7 50	Galv., Plain Ridge Roll	
50-lb. pall	4 25	crated	75-15'
10-lb. bag	1 00		
5-lb. bag	55		
3 1/2-lb. cartons	25		
POKERS, FURNACE		SCREWS	
Each	\$0 75	Sheet Metal	
POKERS, STOVE		7, 1/2x1/2, per gross	\$0 83
Nickel Plated, coil handles,		No. 10, 1/2x3/16, per gross	83
per doz.	1 10	No. 14, 1/2x1/2, per gross	83
W'r't Steel, str't or bent,			
per doz.	\$0 75		
PIPE		SHEARS, TINNERS'	
Conductor		& MACHINISTS'	
Cor. Rd., Plain Rd., or Sq.		Viking	\$23 00
Galvanized		Lennox Throatless	
Crated and nested (all gauges)	75-7 1/2%	No. 18	35%
Crated and not nested (all gauges)	75-2 1/2%	Shear blades	10%
		(f. o. b. Marshalltown, Iowa)	
FURNACE PIPE		SHIELDS, ADJUSTABLE RADIATOR	
Double Wall Pipe and Fittings	50 & 10%	No. 1 "Gem" 11" to 17"	30%
Single Wall Pipe, Round	50 & 10%	No. 2 "Gem" 14" to 24"	30%
Galvanized and Tin Fittings	50 & 10%	No. 3 "Gem" 35" to 65"	30%
LEAD		SHOES	
Per 100 lbs.	\$13 50	Galv. 28 Gauge, Plain or corrugated round flat crimp	.60%
STEVE PIPE		26 gauge round flat crimp	.45%
"Milcor" "Titelock" Uniform Blue		24 gauge round flat crimp	.15%
28 gauge, 5 inch U. C.	11 00		
28 gauge, 6 inch U. C.	13 00		
28 gauge, 7 inch U. C.	14 00		
30 gauge, 5 inch U. C.	10 25		
30 gauge, 6 inch U. C.	11 00		
30 gauge, 7 inch U. C.	13 00		
T-Joint Made up		SNIPS, TINNERS	
6-inch, 28 ga. per doz.	\$ 3 40	Clover Leaf	.40 & 10%
All Zinc		National	.40 & 10%
No. 11, all styles	.60%	Star	.50%
		Milcor	Net
PULLEYS		SQUARES	
Furnace Tackle per doz.	\$0 85	Steel and Iron	Net
Furnace Screw (enameled) per doz.	75	(Add for bluing \$3 per doz. net)	
PUTTY		Mitre	Net
Commercial Putty, 100-lb. Kits	\$3 15	Try	Net
Malleable Iron Damper	10%	Try and Bevel	Net
REDUCERS—Oval Stove Pipe		Try and Mitre	Net
Per Doz.		Fox's	per doz. \$6 00
7-5, 28-gauge, 1 doz. in carton	\$2 00	Winterbottom's	10%
REGISTERS AND BORDERS		STOPPERS, FLUE	
Baseboard, Floor and Wall		Common	per doz. \$1 10
Cast Iron	20%	Gem, No. 1	per doz. 1 10
Steel and Semi-Steel	33 1/2%	Gem, flat, No. 3	per doz. 1 00
Baseboard, 1 piece	33 1/2-20%		
Baseboard, 2 piece	33 1/2%		
Wall	33 1/2%		
Adjustable Ceiling Ventilators	33 1/2%		
REGISTER FACES—Cast and Steel		VENTILATORS	
Japanned, Bronzed and Plated, 4x6 to 14x14	32 1/2%	Standard	20 to 40%
Large Register Faces—Cast, 14x14 to 38x42	50%		
Large Register Faces—Steel, 14x14 to 38x42	60%		
VENTILATING REGISTER		WIRE	
Per gross	\$ 90	Black annealed wire, No. 9, per 100 lbs.	\$3 20
Small, per pair	20	Galvanized barb wire, per 100 lbs.	\$ 3 90
Large, per pair	50	Cattle Wire—galvanized catch weight spool, per 100 lbs.	\$ 8 80
		Galvanized Plain Wire, No. 9, per 100 lbs.	\$ 7 75

# Sheet Steel Service

**GALVANIZED and BLACK SHEETS**

**Anaconda COPPER** [ 24 HOUR SERVICE ] **TONCAN IRON**

*Eaves Trough and Fittings*

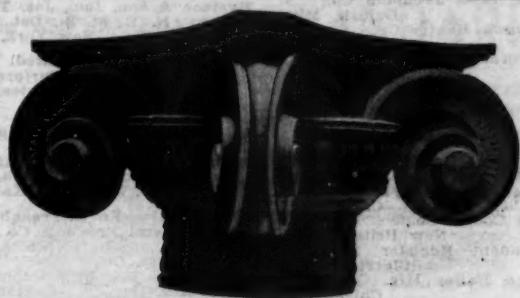
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SHEET STEEL CO.—ROCKFORD, ILL.

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**ÆOLUS  
IMPROVED  
VENTILATORS**

CAN be used for ventilating attics, kitchens and bathrooms in homes.

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Is there a tool or machine that you need in your shop but haven't got because you don't know where to get it? Ask us, we know who makes it and where you can buy it.

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Corrugated



Plain Round



NEVER MADE WITHOUT THIS

TRADE **F. Dieckmann** MARK

*Quality and Service Made 'em Famous*

Made of one piece of heavy gauge material, in all styles and angles from 10 to 90 degrees, of 24, 26, 28 ga. ternes, then galvanized after formation.

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*are the standard of the market  
and always give satisfaction*

*Send for new catalogue 26 showing complete line*

**The Ferdinand Dieckmann Co.**

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Square  
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Style A



Square  
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Style  
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Not made lighter than  
28 ga. or 16 oz. copper

# BUYERS' DIRECTORY

- Air Cleaners.**  
Meyer & Bro. Co., F., Peoria, Ill.  
Watt Mfg. Co., Sterling, Ill.
- Air Conditioning Machines.**  
Watt Mfg. Co., Sterling, Ill.
- Asbestos Paper.**  
Sati-Mountain Co., Chicago, Ill.
- Asbestos Liquid.**  
B. & F. Mfg. Co., Des Moines, Iowa
- Benchies—Steel.**  
Maplewood Machinery Co., Chicago, Ill.
- Blast Gates**  
Berger Bros. Co., Philadelphia, Pa.
- Bolts—Stove.**  
The Kirk-Latty Co., Cleveland, Ohio  
Lamson & Sessions Co., Cleveland, Ohio  
Ryerson & Son, Inc., Jos. T., Chgo., N. Y., St. L., Det., Cleve.
- Brakes—Bending.**  
Dreis & Krump Mfg. Co., Chicago, Ill.  
Ryerson & Son, Inc., Jos. T., Chgo., N. Y., St. L., Det., Cleve.
- Brakes—Cornices.**  
Dreis & Krump Mfg. Co., Chicago, Ill.
- Brass and Copper.**  
American Brass Co., Waterbury, Conn.
- Cans—Garbage.**  
Osborn Co., The J. M. & L. A., Cleveland, Ohio
- Castings—Malleable.**  
Fanner Mfg. Co., Cleveland, Ohio
- Ceilings—Metal.**  
Eller Manufacturing Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Chaplets.**  
Fanner Mfg. Co., Cleveland, Ohio
- Chimney Tops.**  
Standard Ventilator Co., Lewisburg, Pa.
- Cleaners—Vacuum.**  
Brillion Furnace Co., Brillion, Wis.  
National Super Service Co., Toledo, Ohio  
Williamson Heater Co., Cincinnati, Ohio
- Copper.**  
American Brass Co., Waterbury, Conn.  
Rockford Sheet Steel Co., Rockford, Ill.
- Cornices.**  
Eller Manufacturing Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Cut-offs—Rain Water.**  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Dampers—Quadrants—Accessories.**  
Eller Mfg. Co., Canton, Ohio  
Howes Co., S. M., Boston, Mass.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Parker-Kalen Corp., New York, N. Y.
- Damper Regulators.**  
H. M. Sheer Co., Quincy, Ill.
- Dies—Punch & Press.**  
La Salle Machine Works, Chicago, Ill.
- Diffuser—Air Duct.**  
Aeolus-Dickinson Co., Chicago, Ill.
- Doors—Metal.**  
Lupton's Sons Co., David, Philadelphia, Pa.
- Draft Regulators.**  
Gray Brothers Co., Piano, Ill.
- Drills—Electric.**  
Ryerson & Son, Inc., Jos. T., Chgo., N. Y., St. L., Det., Cleve.
- Drive Screws—Hardened Metallic.**  
Parker-Kalen Corp., 200 Varick St., New York
- Eaves Trough.**  
Barnes Metal Products Co., Chicago, Ill.  
Berger Bros. Co., Philadelphia, Pa.  
Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
New Jersey Zinc Sales Co., The, New York, N. Y.  
Rockford Sheet Steel Co., Rockford, Ill.
- Elbows and Shoes—Conductor.**  
Barnes Metal Products Co., Chicago, Ill.  
Dieckmann Co., Ferdinand, Cincinnati, Ohio  
Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Rockford Sheet Steel Co., Rockford, Ill.
- Wood Faces—Warm Air.**  
Auer Register Co., Cleveland, Ohio  
American Wood Register Co., Plymouth, Ind.  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Fittings—Conductor.**  
Barnes Metal Products Co., Chicago, Ill.  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Flanges.**  
Chicago Metal Mfg. Co., Chicago, Ill.
- Filters—Registers**  
The Tuttle Register Dust Catcher Co., Louisville, Ky.
- Flue Thimbles.**  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Furnace Cement—Asbestos.**  
Connors Paint Mfg. Co., Wm., Troy, N. Y.  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Furnace Cement—Liquid.**  
Technical Products Co., Pittsburgh, Pa.
- Furnace Cleaners—Hand.**  
J. L. Skuttle Mfg. Co., Dowagiac, Mich.
- Furnace Cleaners—Suction.**  
Brillion Furnace Co., Brillion, Wis.  
National Super Service Co., Toledo, Ohio  
Williamson Heater Co., Cincinnati, Ohio
- Furnace Fans.**  
A-C Mfg. Co., Pontiac, Ill.  
Brundage Co., The, Kalamazoo, Mich.  
A. H. Robinson Co., Massillon, Ohio  
Warm Air Furnace Fan Co., Wat Mfg. Co., Sterling, Ill.  
The, Cleveland, Ohio  
Williamson Heater Co., Cincinnati, Ohio
- Furnace Regulators.**  
H. M. Sheer Co., Quincy, Ill.
- Furnace Rings.**  
Eller Mfg. Co., Canton, Ohio  
Forest City-Walworth Run Foundries Co., Cleveland, Ohio  
Milwaukee Corrugating Co., Milwaukee, Wis.
- Furnaces—Warm Air.**  
Agricola Furnace Co., Gadsden, Ala.  
American Furnace Co., St. Louis, Mo.  
Brillion Furnace Co., Brillion, Wis.  
Emrich Co., C., Columbus, Ohio  
Farris Furnace Co., Springfield, Ill.  
Forest City-Walworth Run Fdy., Cleveland, Ohio  
Fox Furnace Co., Elyria, Ohio  
Henry Furnace & Fdy. Co., Cleveland, Ohio  
Hess Warming & Ventilating Co., Chicago, Ill.  
Homer Furnace Co., Coldwater, Mich.  
Langenberg Mfg. Co., St. Louis, Mo.  
Lennox Furnace Co., Marshalltown, Ia.; Syracuse, N. Y.  
Marshall Furnace Co., Marshall, Mich.  
Majestic Co., Huntington, Ind.  
May Piebeger Furnace Co., Newark, Ohio  
Meyer Furnace Co., The, Peoria, Ill.  
Midland Furnace Co., Columbus, Ohio  
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.  
Mueller Furnace Co., L. J., Milwaukee, Wis.  
Premier Warm Air Heater Co., Dowagiac, Mich.  
Richardson & Boynton Co., New York, N. Y.  
Robinson Co., A. H., Massillon, Ohio  
Standard Fdy. & Furnace Co., De Kalb, Ill.  
Success Heater Mfg. Co., Des Moines, Ia.  
XXth Century Heating & Ventilating Co., Akron, Ohio  
Waterman-Waterbury Co., Minneapolis, Minn.  
Western Steel Products Co., Duluth, Minn.  
Williamson Heater Co., Cincinnati, Ohio  
Wise Furnace Co., Akron, Ohio
- Glass—Wire.**  
Lupton's Sons Co., David, Philadelphia, Pa.
- Grilles.**  
Auer Register Co., Cleveland, Ohio  
Harrington & King Perforating Co., Chicago, Ill.  
Hart & Cooley Co., New Britain, Conn.  
Independent Register & Mfg. Co., Cleveland, Ohio  
Tuttle & Bailey Mfg. Co., Chicago, Ill.
- Grilles—Stove Front.**  
Tuttle & Bailey Mfg. Co., Chicago, Ill.
- Guards—Machine and Belt.**  
Harrington & King Perforating Co., Chicago, Ill.
- Handles—Boller**  
Berger Bros. Co., Philadelphia, Pa.
- Handles—Soldering Iron.**  
Hyro Mfg. Co., New York, N. Y.
- Hangers—Eaves Trough.**  
Berger Bros. Co., Philadelphia, Pa.  
Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Heat Regulation Systems.**  
H. M. Sheer Co., Quincy, Ill.
- Heaters—Cabinet**  
Fox Furnace Co., Elyria, Ohio  
Waterman-Waterbury Co., Minneapolis, Minn.
- Heaters—Combination Hot Water.**  
Alamo Heater Co., Chicago, Ill.  
Standard Fdy. & Furnace Co., De Kalb, Ill.
- Heaters—Domestic Hot Water.**  
Alamo Heater Co., Chicago, Ill.  
Standard Fdy. & Furnace Co., De Kalb, Ill.
- Heaters—School Room.**  
Meyer Furnace Co., The, Peoria, Ill.  
Waterman-Waterbury Co., Minneapolis, Minn.
- Hotels.**  
Fort Shelby Hotel, Detroit, Mich.
- Humidifiers.**  
Automatic Humidifier Co., Cedar Falls, Iowa  
Meyer & Bro. Co., F., Peoria, Ill.  
Mueller Furnace Co., L. J., Milwaukee, Wis.  
Perfect Humidifier Co., St. Louis, Mo.  
J. L. Skuttle Mfg. Co., Dowagiac, Mich.  
Watt Mfg. Co., Sterling, Ill.
- Lath—Expanding Metal.**  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Machines—Crimping.**  
Bertsch & Co., Cambridge City, Ind.
- Machinery—Culvert.**  
Bertsch & Co., Cambridge City, Ind.
- Machines—Tinsmith's.**  
Bertsch & Co., Cambridge City, Ind.  
Dreis & Krump Mfg. Co., Chicago, Ill.  
Interstate Machinery Co., Chicago, Ill.  
La Salle Machine Works, Chicago, Ill.  
Maplewood Machinery Co., Chicago, Ill.  
Marshalltown Mfg. Co., Marshalltown, Iowa  
Osborn Co., The J. M. & L. A., Cleveland, Ohio  
Peck, Stow & Wilcox Co., Southington, Conn.  
Ryerson & Son, Inc., Jos. T., Chgo., N. Y., St. L., Det., Cleve.  
Hyro Mfg. Co., New York, N. Y.
- Metals—Perforated.**  
Harrington & King Perforating Co., Chicago, Ill.
- Miters.**  
Eller Mfg. Co., Canton, Ohio  
Friedley-Voshardt Co., Chicago, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Miters—Eaves Trough.**  
Barnes Metal Products Co., Chicago, Ill.  
Berger Bros. Co., Philadelphia, Pa.  
Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Nails—Hardened Masonry.**  
Parker-Kalen Corp., New York, N. Y.
- Nails—Lead Head.**  
Deniston Co., Not Inc., Chicago, Ill.
- Oil Burners.**  
McIlvaine Burner Corp., Evanston, Ill.  
E. L. Miller Mfg. Co., Kansas City, Mo.
- Ornaments—Sheet Metal.**  
Eller Mfg. Co., Canton, Ohio  
Friedley-Voshardt Co., Chicago, Ill.  
Gerock Bros. Mfg. Co., St. Louis, Mo.  
Miller & Doing, Inc., Brooklyn, N. Y.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
- Paint.**  
Connors Paint Mfg. Co., Wm., Troy, N. Y.
- Patterns—Furnace and Stove.**  
Cleveland Castings Pattern Co., Cleveland, Ohio  
Quincy Pattern Co., Quincy, Ill.  
Vedder Pattern Works, Troy, N. Y.

(Continued on page 80)

Say you saw it in AMERICAN ARTISAN—Thank you!

Cut your sheets quicker,  
easier and better with—

### MARSHALLTOWN Throatless Shears

CUTTING your sheets accurately with speed increases your profit. This No. 18 Marshalltown Hand Power Shear will pay for itself in no time at all—its cost is so low you will be surprised.



Covered by Patent  
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It does  
all your sheet cutting—  
every shop can use it—

This No. 18 takes sheets any size—its construction is the best made of toughest, strongest metal with blades that stand the gaff.

Write to Dept. A. A. for full details of this and other Marshalltown Sheet Metal Tools.

MARSHALLTOWN MANUFACTURING CO.  
MARSHALLTOWN, IOWA

The NEW IMPROVED

### "STANDARD"

TRADE MARK REG.

#### Rotable Ventilator

Now made of Armco Iron

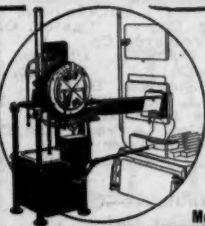
This favorite cone-shaped ventilator is now improved in several important points.

The weight of the ventilator body is now carried on a concave thrust bearing nested in the apex of the conical body. This bearing turns upon the pivot point of the stationary center spindle.

The bronze Guide Bushings are now made of non-corrosive bronze which minimizes friction and any tendency to screech when body is rotating.

There are other new features. Write today for new catalog and price list.

STANDARD VENTILATOR CO., Lewisburg, Pa.



### McILVAINE OIL BURNER

Listed by Underwriters

Adaptable to warm-air furnaces because the McILVAINE System of continuous flame insures no cracking or burning of fire pots, but produces even, dependable heat.

Not an Intermittent Burner

DEALERS: Write for information today.  
McILVAINE BURNER CORP., Dept. A, 747 Custer Ave., Evanston, Ill.

### DENISTON "led-hed" NAILS



"The Nail That  
Never Loses  
Its Head"

"All the Lead  
Under The Head"

Double Seals  
the Nail Hole

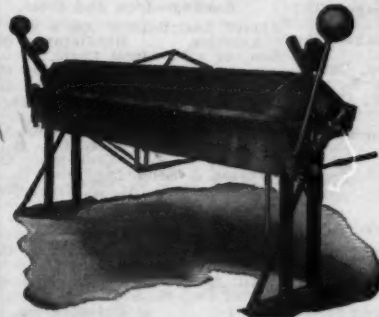
### Better Fastenings and Protection from Nail Hole Rust

DENISTON "led-hed" nails are designed with all the lead under the head. This type nail when driven into Sheet Steel allows no rusting around the nail hole, and thus protects and lengthens the life of the roofing. They are convenient to use and better than Lead Washers. When the hammer hits the nail it strikes the steel nail head, and will not at any force loosen the lead from the nail.

If your Jobber cannot Supply You—give us his name and we will send you samples and circulars.

The DENISTON CO., NOT INC.  
4856 South Western Avenue CHICAGO, ILL.

### CHICAGO STEEL CORNICE BRAKES STANDARD OF THE WORLD



THE BEST BRAKE  
FOR ALL PURPOSES: Most Durable, Easiest Operated, Low in Price. Made in All Lengths and to Bend All Gauges of Metal. Over 25,000 in use.

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DREIS & KRUMP MFG. CO., 7404 Loomis Street, CHICAGO



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This TREADLE GAP SHEAR is made in all standard sizes for No. 14 and lighter gauge sheets. With it, sheets can be squared, trimmed or slit.

We make a complete line of shears, punches and bending rolls, all sizes for hand or belt drive. Write for Catalog "S."

BERTSCH & COMPANY Cambridge City, Ind.



Send for catalog today

### VIKING SHEAR

Compound LEVER Handle—Removable Blades

A child can work them

VIKING SHEAR CO., Erie, Pa.

# BUYERS' DIRECTORY

(Continued from page 78)

## Perforated Metals.

Harrington & King Perforating Co., Chicago, Ill.

## Pipe and Fittings—Furnace.

Chicago Furnace Supply Co., Chicago, Ill.  
Eller Mfg. Co., Canton, Ohio  
Henry Furnace & Fdy. Co., Cleveland, Ohio  
Lamneck Co., W. E., Columbus, Ohio  
Meyer & Bro. Co., F., Peoria, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Mueller Furnace Co., L. J., Milwaukee, Wis.  
Osborn Co., The J. M. & L. A., Cleveland, Ohio

## Pipe and Fittings—Stove.

Meyer & Bro. Co., F., Peoria, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Pipe—Conductor.

Barnes Metal Products Co., Chicago, Ill.  
Berger Bros. Co., Philadelphia, Pa.  
Dieckmann Co., Ferdinand, Cincinnati, Ohio  
Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
New Jersey Zinc Sales Co., The New York, N. Y.

## Presses.

La Salle Machine Works, Chicago, Ill.

## Pipe Covering.

Sall Mountain Co., Chicago, Ill.

## Punches.

Bertsch & Co., Cambridge City, Ind.  
Interstate Machinery Co., Chicago, Ill.  
La Salle Machine Works, Chicago, Ill.  
Peck, Stow & Wilcox Co., Southington, Conn.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

## Punches—Combination Bench and Hand.

Hyro Mfg. Co., New York, N. Y.

## Punches—Hand.

Hyro Mfg. Co., New York, N. Y.

## Putty—Stove.

Connors Paint Mfg. Co., Wm., Troy, N. Y.

## Radiator Cabinets.

The Hart & Cooley Mfg. Co., New Britain, Conn.  
Tuttle & Bailey Mfg. Co., Chicago, Ill.

## Radiators—Shields.

Beh & Co., Inc., New York, N. Y.

## Register Shields.

Beh & Co., Inc., New York, N. Y.

## Registers—Warm Air.

Auer Register Co., Cleveland, Ohio  
Eller Mfg. Co., Canton, Ohio  
Forest City-Walworth Run Foundries Co., Cleveland, Ohio  
Hart & Cooley Co., New Britain, Conn.  
Henry Furnace & Fdy. Co., Cleveland, Ohio  
Independent Register & Mfg. Co., Cleveland, Ohio  
Ku-No Register Mfg. Co., St. Louis, Mo.  
Lamneck & Co., W. E., Columbus, Ohio  
Meyer & Bro. Co., F., Peoria, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Mueller Furnace Co., L. J., Milwaukee, Wis.  
Rock Island Register Co., Rock Island, Ill.  
Tuttle & Bailey Mfg. Co., Chicago, Ill.

## Registers—Wood.

American Wood Register Co., Plymouth, Ind.  
Auer Register Co., Cleveland, Ohio  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Regulators—Heat.

H. M. Sheer Co., Chicago, Ill.

## Ridging.

Armco Distributors Ass'n of America, Middletown, Ohio  
Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Rivets—Stove.

The Kirk-Latty Co., Cleveland, Ohio  
Lamson & Sessions Co., Cleveland, Ohio  
Ryerson & Son, Inc., Jos. T., Ch'go, N. Y., St. L., Det., Cleve.

## Rods—Stove.

The Kirk-Latty Co., Cleveland, Ohio  
Lamson & Sessions Co., Cleveland, Ohio

## Rolls—Forming.

Bertsch & Co., Cambridge City, Ind.

## Roofing Cement.

Connors Paint Mfg. Co., Wm., Troy, N. Y.

## Roof—Flashing.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Milwaukee, Wis.

## Roofing—Iron and Steel.

Armco Distributors Ass'n of America, Middletown, Ohio  
Central Alloy Steel Corp., Massillon, Ohio  
Eller Mfg. Co., Canton, Ohio  
Inland Steel Co., Chicago, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Osborn Co., The J. M. & L. A., Cleveland, Ohio  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

## Roofing—Tin.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Taylor Co., N. & G., Philadelphia, Pa.

## Roofing—Zinc.

New Jersey Zinc Sales Co., The New York, N. Y.

## Rubbish Burners.

Hart & Cooley Co., New Britain, Conn.

## Schools—Sheet Metal Pattern Drafting.

St. Louis Technical Institute, St. Louis, Mo.

## Schools—Warm Air Heating.

St. Louis Technical Institute, St. Louis, Mo.

## Screws—Hardened Metallic Drive.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Parker-Kalon Corp., 200 Varick St., New York

## Screws—Hardened Self-Tapping, Sheet Metal.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Parker-Kalon Corp., 200 Varick St., New York

## Screens—Perforated Metal.

Harrington & King Perforating Co., Chicago, Ill.

## Shears—Hand and Power.

Interstate Machinery Co., Chicago, Ill.  
Marshalltown Mfg. Co., Marshalltown, Iowa  
Peck, Stow & Wilcox Co., Southington, Conn.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.  
Viking Shear Co., Erie, Pa.

## Sheet Metal Nails.

Deniston Co., Not Inc., Chicago, Ill.

## Sheet Metal Screws—Hardened, Self-Tapping.

Parker-Kalon Corp., 200 Varick St., New York

## Sheets—Black and Galvanized.

Armco Distributors Ass'n of America, Middletown, Ohio  
Central Alloy Steel Corp., Massillon, Ohio  
Eller Mfg. Co., Canton, Ohio  
Inland Steel Co., Chicago, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Osborn Co., The J. M. & L. A., Cleveland, Ohio  
Rockford Sheet Steel Co., Rockford, Ill.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.  
Taylor Co., N. & G., Philadelphia, Pa.

## Sheets—Iron.

Armco Distributors Ass'n of America, Middletown, Ohio  
Central Alloy Steel Corp., Massillon, Ohio  
Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

## Sheets—Tin.

Taylor Co., N. & G., Philadelphia, Pa.

## Sheets—Zinc.

New Jersey Zinc Sales Co., The New York, N. Y.

## Shingles and Tiles—Metal.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Sifters—Ash.

Diener Mfg. Co., G. W., Chicago, Ill.

## Sky Lights.

Eller Mfg. Co., Canton, Ohio  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Snips.

Peck, Stow & Wilcox Co., Southington, Conn.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

## Solder.

Eller Mfg. Co., Canton, Ohio  
Kester Solder Co., Chicago, Ill.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Soldering Furnaces.

Burgess Soldering Furnace Co., Columbus, Ohio  
Diener Mfg. Co., G. W., Chicago, Ill.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.  
Soldering Supplies, Chicago, Ill.

## Specialties—Hardware.

Diener Mfg. Co., G. W., Chicago, Ill.

## Stars—Hard Iron Cleaning.

Fanner Mfg. Co., Cleveland, Ohio

## Statuary.

Friedley-Voshardt Co., Chicago, Ill.  
Gerock Bros. Mfg. Co., St. Louis, Mo.  
Miller & Doing, Inc., Brooklyn, N. Y.

## Stove Pipe Reducers.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

## Tinplate.

Eller Mfg. Co., Canton, Ohio  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Osborn Co., The J. M. & L. A., Cleveland, Ohio  
Taylor Co., N. & G., Philadelphia, Pa.

## Tools—Tinsmith's.

Bertsch & Co., Cambridge City, Ind.  
Dries & Krump Mfg. Co., Chicago, Ill.  
Hyro Mfg. Co., New York, N. Y.  
Interstate Machinery Co., Chicago, Ill.  
Maplewood Machinery Co., Chicago, Ill.  
Osborn Co., The J. M. & L. A., Cleveland, Ohio  
Peck, Stow & Wilcox Co., Rockford, Ill.  
Rockford Sheet Steel Co., Southington, Conn.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.  
Viking Shear Co., Erie, Pa.

## Torches.

Burgess Soldering Furnace Co., Columbus, Ohio  
Diener Mfg. Co., G. W., Chicago, Ill.  
Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

## Trade Extension.

Sheet Steel Trade Extension Committee, Cleveland, Ohio

## Trimnings—Stove.

Fanner Mfg. Co., Cleveland, Ohio

## Vacuum Cleaner—Furnace.

Brillion Furnace Co., Brillion, Wis.  
National Super Service Co., Toledo, Ohio  
Williamson Heater Co., Cincinnati, Ohio

## Ventilators.

Aeolus Dickinson Co., Chicago, Ill.  
Arex Company, Chicago, Ill.  
Berger Bros. Co., Canton, Ohio  
Eller Mfg. Co., Canton, Ohio  
Friedley-Voshardt Co., Chicago, Ill.  
Kerachen Co., Chicago, Ill.  
Lupton's Sons Co., David, Philadelphia, Pa.  
Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City  
Standard Ventilator Co., Lewisburg, Pa.

## Ventilators—Ceiling.

Hart & Cooley Co., New Britain, Conn.  
Henry Furnace & Fdy. Co., Cleveland, Ohio

## Windows—Steel.

Lupton's Sons Co., David, Philadelphia, Pa.

## Zinc.

New Jersey Zinc Co., The New York, N. Y.

Mention AMERICAN ARTISAN in your reply—Thank you!

## WANTS AND SALES

Yearly subscribers to the **AMERICAN ARTISAN** may insert advertisements of not more than fifty words in our Want and Sales Columns **WITHOUT CHARGE** for three insertions.

Such advertisements, however, must be limited to help or situation wanted, tools or equipment for sale, to exchange or to buy, business for sale or location desired and must reach our office by Thursday of the week of publication. This privilege is not extended to manufacturers or jobbers—or those making a business of buying and selling used machines—employment agencies and brokers.

When sending advertisement state whether your name or blind number is to be used.

## BUSINESS CHANCES

**Lightning Rods**—Dealers who are selling Lightning Protection will make money by writing to us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable and Fixtures are endorsed by the National Board of Fire Underwriters and hundreds of dealers. Write today for samples and prices. L. K. Diddle Company, Marshfield, Wis.

**For Sale**—Sheet metal and furnace shop in county seat town of 9,000 population. One block from public square. Only two other shops in town. Same location for 20 years. Building 18x50 with part basement. Rent \$35.00. Last year business, \$8,778.68. Net profit, \$2,500.00. Must sell on account of age and poor health. Stock invoices about \$500.00. Will sell tools and fixtures for \$350.00. A real sacrifice. Address Minor Metal Company, Kirksville, Mo. A-507

**For Sale or Exchange**—General sheet metal, furnace and roofing business located on the West Side of Chicago. Great chance for mechanic who wants to get ahead. Established 27 years, fully equipped, ideal location. Will sell at a bargain and assist buyer to get started. Wish to retire on account of age and health. Address A-508, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

## BUSINESS CHANCES

**For Sale**—Sheet metal shop and residence in central Illinois city. Shop 27x32 feet, including all tools, up-to-date stock and fixtures, 8-room house, all modern. Business established 15 years. Good for yearly business of \$10,000.00 or more. Will sell at a bargain. Want to retire on account of age and health. Address Z-506, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

**Will Sell**—A sure opportunity to buy half interest in a successful furnace and sheet metal business. Owner wants partner who is a practical business man. Stock and building worth \$25,000.00, located in a large Missouri city with an unlimited field. Would consider good clear real estate. Address C-507, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

**Will sell fully equipped up-to-date sheet metal and plumbing shop.** Only one in town of 8,000 located in central Indiana. Retiring from business after 30 years. A wonderful opportunity for a hustler. Address B-507, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

**For Sale**—Heating, plumbing and sheet metal shop about 100 miles from Chicago, in Indiana. Fully equipped. This is a good chance for one who can handle both. Price will be right. Address Y-506, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

## SITUATION WANTED

**Position Wanted**—Sheet metal worker. layout work from plans and blueprints. Can make and erect cornices, skylights, blow pipe, ventilation, etc. Furnace (code) installation, also all sheet metal work on building construction. Also do german silver soda fountain work, etc. Asbestos shingle, metal tile, zinc and S. M. roofing. Highest grade workmanship. Illinois preferred. Address T-506, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

**Position Wanted**—By first class sheet metal mechanic, skilled in all branches of the trade. Married and must have work the year around. Prefer large town or small city in Illinois or Wisconsin. Now employed but could come any time. Please state wages offered and living conditions in first letter. Address H-507, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

**Sales Executive**—Master of furnace and warm air heating business, exceptionally qualified. Wish to connect with large furnace heating concern in large city. Address Box S-507, care **AMERICAN ARTISAN**, 139 North Clark street, Chicago, Ill.

## SITUATION WANTED

A first class all around mechanic thoroughly experienced in all lines such as cornice, sky light, blow pipe, ventilation, heating, etc., as well as laying out work wants steady job. Sober, steady and reliable. Married. Shop work desired. State union or not and pay. References. Address E. W. Hlatt, 1212 S. Walnut St., Muncie, Ind. X-506

**Situation wanted as working foreman** by first-class all around sheet metal worker. Have had 25 years of experience at trade in all branches such as may come to any job shop. Lay out patterns and read blue prints, also handle men. Can go anywhere. Address W-506, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

A graduate of the Sheet Metal Department of a well known trade school wants work in a progressive Sheet Metal shop where he can finish learning the trade. Address G-507, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

## HELP WANTED

**Wanted**—Combination plumber and tinner who can do first class work, in the best city of 8,000 population in Central Texas. Steady position for the right fellow at \$6.00 per day. No lead work required. Large and well equipped shop. Address X-507, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

**Wanted at Once**—Tinner for all around sheet metal work and furnaces. Steady position at good wages in a fine shop. Will pay either weekly or hourly rate. When replying state experience and where previously employed. Address Ranf Sheet Metal Works, Ludington, Mich. S-506

**Wanted**—All around tinner and sheet metal worker for inside and outside work. Must know furnace game. No boozier need apply. Steady job to the right man. State wages expected in first letter. Address L. O. Nicholson & Son, 326 So. Jefferson St., New Castle, Pa. W-507

**Wanted**—All around sheet metal worker, some knowledge of plumbing. Younger man preferred; no boozier or clock watcher. 10 hour day. State wages and how soon you can come. Address The Buehrers Tin Shop, Dorchester, Wis. J-507

## MISCELLANEOUS

**For Sale**—50 new 14x16 floor registers at \$1.25 each F. O. B. Granite City, Ill. No less than six sold. Address Southwick Metal Company, Granite City, Ill. D-507

The latest news about the Warm Air Heating Industry is to be found in this Journal every week.

*This is the only trade Journal covering this field published every week.*

## TINNERS' TOOLS

For Sale—One complete set of tinner's tools in fine condition. One heavy Chicago steel cornice brake, practically new. Two Bignall & Keeler improved power pipe threading machines, in fine condition; one threading from 1/4" to 2" including 2", the other threading from 1/2" to 8" including 8". Address T. L. Wiggin, Yankton, So. Dak. O-507

### WANTED:

1—36" Square Shears.  
1—30" Folder.  
1—48" Brake—22 gauge and lighter.  
Also late copy of sheet metal pattern book.  
Must be in good condition. Write at once to H. C. Neuenfeldt, 896 Lafond street, St. Paul, Minn. L-507

### WANTED following used tools:

1—30" Mandrell.  
1—Pair 30" Rollers.  
1 Stove Pipe Crimper.  
Please give price in answer. Address K-507, AMERICAN ARTISAN, 139 N. Clark street, Chicago, Ill.

For Sale—One New No. 585A Pexto crimping and beading Machine. Used six months. One used No. 502 Pexto Grooving Machine. At \$15.00 each. Address Y-507, AMERICAN ARTISAN, 139 N. Clark St., Chicago, Ill.

Wanted to Buy—Cornice brake, square shears and bench stakes. Success Heating Co., Chippewa Falls, Wis., Box. 268. M-507

Wanted—Hand operated cutter to cut one inch channel iron. State condition and price. Address Box 234, Comfort, Texas. P-507

Wanted—One heavy slip roll former that will roll 48", 14 gauge iron or lighter. Address Way's Furnace Co., 2121 O St., Lincoln, Nebraska. Z-507

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20" Pexto Bar Folder.....\$25.00  
No. 5 Niagara Beader..... 12.00  
Setting Down Mach..... 7.50  
Plain Crimper..... 9.25  
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500 ITEMS READY FOR  
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The Sensational New Burner, Built on  
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\$10 to \$40 to Heat 4 to 40 Rooms  
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## DISTRICT MANAGER

or assistant sales manager, thoroughly versed in furnace and warm air heating business wishes to connect with prominent manufacturer. Address Box R507, American Artisan, 139 North Clark Street, Chicago, Ill.



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Exhaust and Blow Piping, by Hayes—Exhaust and Blow Piping has had an unusually big demand. A fresh supply is now off the press and is in our hands for immediate delivery. It has an invaluable treatise on the planning, cost, estimation and installation of fan piping in all its branches giving all necessary guidance in fan work blower and separator construction. 159 pages. 6x8. 51 figures. Cloth. \$2.00. Order from Book Dept. AMERICAN ARTISAN, 139 North Clark Street, Chicago, Illinois.

Manual of Automotive Radiator Construction and Repair, by F. L. Curfman and T. H. Leet—Anyone interested in Radiator Repairing will find the 185 pages of practical instructions and the 130 illustrations showing actual construction and repairing a big help. In a condensed manner some four to five thousand answers to questions are given. It is thoroughly practical as both authors are men of wide experience in this work. Printed in large, easy to read type. Measures 6x9 inches. Price \$2.50. Order from book Dept., AMERICAN ARTISAN, 139 North Clark Street, Chicago, Illinois.

## SPECIAL NOTICE

### OPPORTUNITY BRANCH MANAGER

One of the country's largest and longest established manufacturers of warm air furnaces and heating equipment desires the services of wide-awake men to take charge of direct factory branches in various cities. The proposition will be a substantial salary, and profit-sharing arrangement in addition. The merchandise is well and favorably known to the public.

Unusual cooperation will be given, intending that the man dominate the heating business in the town in which they locate him. The man chosen must be that rare combination—executive salesman, and collector. He will be given full charge of the entire branch. He will be able to present a very complete service to the home owner or home builder, for a complete heating plant direct from the factory.

This is an exceptional opportunity for a reliable and energetic man. Heating experience is not absolutely necessary, although applicants with warm air heating experience or knowledge, will naturally be given preference, other things being equal. This would also warrant attention from one now engaged in the heating business with limited capital or an unsatisfactory line, who feels he could do bigger things with the proper backing. Probably you know such a man. If so, refer him to this advertisement also.

No attention will be given your reply unless you set forth clearly, the following information: 1, age; 2, married; 3, have you car or truck; if so, what kind; 4, a definite record of what you have been doing for the past ten years, together with earning power; 5, what you are doing now; 6, why you wish to change; 7, when you can leave; 8, what your living expenses are at present; 9, what salary you would wish to start with; 10, in what town you prefer to operate; 11, tell us in your own language what you think you can do with the proper line and proper working capital.

All replies will be strictly confidential.

Address, L. L. S., 337 West Fifth Street, Cincinnati, Ohio. T-507

## WANTED

Salesman to represent us on complete line of boilers, radiators, furnaces and specialties. Address International Heater Company, 101 Park Ave., Utica, New York

R506

## -B.B.- LINE OF SHEET METAL SUPPLIES

B.B. CONDUCTOR HOOKS AND GUTTER HANGERS  
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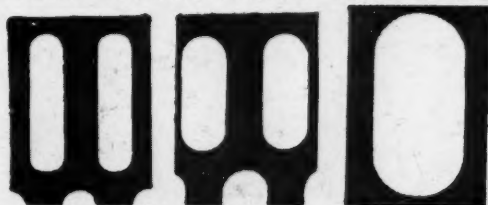


The "Torrid" Furnace is designed to give a tremendous amount of heat, much more than that furnished by the ordinary tinner's furnace.

A fuel saver and generating machine of the finest quality made at the price.

**GEO. W. DIENER MFG. CO.**  
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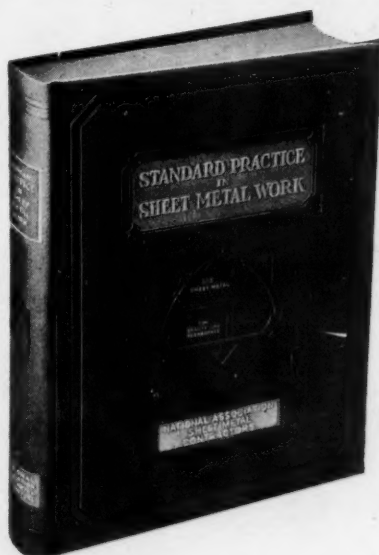
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